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## The protection of the marine environment within the territorial seas and contiguous zone of India as part of salvage interventions

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**WORLD MARITIME UNIVERSITY**

Malmö, Sweden

**THE PROTECTION OF THE MARINE ENVIRONMENT  
WITHIN THE TERRITORIAL  
SEAS AND CONTIGUOUS ZONE OF INDIA AS PART  
OF SALVAGE INTERVENTIONS**

By

**POORAN CHAND MEENA**

**India**

A dissertation submitted to the World Maritime University in partial  
fulfilment of the requirement for the award of the degree of

**MASTER OF SCIENCE**

**In**

**MARITIME AFFAIRS**

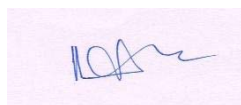
**(MARITIME LAW AND POLICY)**

2019

## DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.



(Signature): .....

(Date): ...**24 SEP 2019**.....

Supervised by: .....

Supervisor's affiliation: .....

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Pooran Chand Meena  
Malmo, 24 Sep 2019

## ABSTRACT

Title of Dissertation: **The protection of the marine environment within the territorial seas and contiguous zone of India as part of salvage interventions.**

Degree: **Master of Science**

This dissertation is a study of the salvage laws applicable and enforced in India for protecting the marine environment as part of salvage interventions and the practical solutions to genuine problems of salvage and ways for parties to resolve disputes. The study includes the correlation between Indian and international laws on protecting the marine environment through special attention to salvage under the International Salvage Convention, 1989.

A review of salvage contracts and role of insurance in different contracts for various types of salvage operations to protect the marine environment and the rights of coastal State and ships in territorial and contiguous zone is undertaken. It includes a discussion on the use of special equipment in such operations, the preparedness of salvors to deal with challenging situations in hostile weather conditions, and other new developments in salvage. The respective roles of bodies and organisations involved in salvage operations such as salvage companies, the International Salvage Union [ISU], Protection & Indemnity Clubs [P&I], Hull & Machinery underwriters [H&M], Ship Owners and Maritime Administration are addressed as well. Further, the review of two cases related to marine environment in Indian waters has been analysed.

The range of salvorial skills available for any salvage operation is examined based on number of successful salvage operations in marine environment protection. The trade-off skills required for ship owners to negotiate with salvage companies or operators for quick action are examined.

A study of salvage and protection of the marine environment in territorial waters and contiguous zone has been made through case studies, to identify the mechanism under national and international laws relating to the rights of coastal States and distressed ship and salvors liability for carrying out a salvage operation as agreed without further topping up of any existing securities. Circumstances under which a salvor can refuse to undertake salvage operation are discussed including basic obligation of salvors under national and international laws for the protection of the marine environment and saving the property in peril. The means for taking recourse measures against salvors by the operators and by the maritime administrations are also examined.

The concluding chapter highlights the future needs of the salvors, salvage unions, ship owners, coastal States regarding their obligations and the outlook of IMO. Further, the options available to the Maritime Administration's for recourse against parties for failure to prevent damage to the marine environment are addressed. Recommendations are made concerning the need for further actions to be taken for making commercial salvage a more responsible industry.

**KEYWORDS:** Salvors, Salvage, Marine Environment, Refuge, evaluation, negotiations, experience, Place of refuge, LOF, SCOPIC.

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## **List of Abbreviations**

China MSA	China Maritime Safety Administration
CLC,69	The International Civil Liability Convention, 1969
CMI	Comite Maritime International
CTL	Constructive Total Loss
DGS	Directorate General of Shipping
DG Shipping	Director General of Shipping
EEE	Energy efficient, economy of scale and environmentally improved vessels
EPA	Environment Protection Act, 1986
EPIRB	Emergency Position Indicating Radio Beacon
ETV	Emergency Towing Vessels
GA	General Average
GoI	Government of India
GOVREP	Government Representative
HCI	High Court of India
HFO	Heavy Fuel Oil
H&M	Hull & Machinery Insurance
HNS	Hazardous and Noxious Substances
ICG	Indian Coast Guard
ICRW	Nairobi International Convention on the Removal of Wrecks, 2007
IGP&I	International Group of Protection & Indemnity insurance
ILO	International Labour Organisation
IMCO	Inter-Governmental Maritime Consultative Organisation
IMO	International Maritime Organisation
IPOC	International Oil Pollution Compensation Funds
IPC	Indian Penal Code
ISC	International Salvage Convention, 1989
ISU	International Salvage Union
ITOPF	International Tanker Owners Pollution Federation
IWG	International Working Group
LEG	Legal Committee of IMO

LMAA	London Maritime Arbitration Association
LNG	Liquefied Natural Gas
LLMC	International Convention on Limitation of Liability, 1976
LOF	Lloyds Open Forms
MARPOL	The International Convention on the Prevention and Control of Marine Pollution, 1973/78
MASS	Maritime Autonomous Surface Ships
MEPC	Marine Environment Protection Committee of IMO
MF/HF	Medium Frequency/High Frequency
MI	Marine Insurance
MRCC	Maritime Rescue Coordination Center
MSB	Merchant Shipping Bill, 2016
MSA	The Merchant Shipping Act, 1958
MSC	Maritime Safety Committee of IMO
MSR	Merchant Shipping Rules
NCP	National Contingency Plan
NGT	National Green Tribunal
NM	Nautical Miles
NOS-DCP	National oil spill - Disaster Contingency Plan
NSB	National Shipping Board
OILPOL	The International Convention of the Prevention of Oil Pollution from Ships, 1954
OPRC	The International Convention on Oil Pollution Preparedness and response Cooperation
OPL	Outer Port Limit
PME	Prevention of Marine Environment
PI	Preliminary Investigation
P & I Club	Protection and Indemnity Clubs
QI	Qualified Individual
SART	Search and Rescue Transponder
SAT C	INMARSAT Sat C
SCOPIC	Special Compensation Protection & Indemnity Clause
SOLAS	Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plan

SOSREP	Secretary of State Representative Maritime Salvage & Intervention
SMFF	Salvage and Firefighting
SPM	Single Point Mooring
TEU	Twenty Equivalent Foot Containers
UKAA	United Kingdom Arbitration Association
UNCLOS	United National Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Commerce
USA	United States of America
USCG	United States Coast Guard
VLCC	Very Large Crude Oil Tanker
VLGC	Very Large Gas Tanker
VLOC	Very Large Ore Carrier
VRP	Vessel Response Plan
VLCC	Very large crude oil tankers
WCI	West Coast of India
WPCPA	The Water (Prevention and Control of Pollution) Act 1974

## **1. Introduction**

The marine environment is a single indivisible system encompassing the entire planet, and it cannot be divided into discrete units commensurate to the judicial zones of the State territory (Smith, 1988). The biggest threat to a healthy marine environment is marine pollution today. The development of a regulatory framework for control of marine pollution started way back in the 1950s and with the first regulatory international framework adopted in 1954 as OILPOL. IMO improved the international regulatory framework with the development of technology with the latest enforcement of sulphur emissions from ships to stave off marine environments. The system of oil pollution response mechanism was developed at a slow pace as compared to a regulatory framework on control of a ship sourced pollution. A response mechanism to any oil pollution casualties at sea was adopted as a private measure in the 1980s with the development of “safety net” provisions under LOF. These measures are for taking preventive measures to prevent damage to the marine environment by salvors, with the adoption of the International Convention on Salvage, 1989 incorporates important changes to 1910 Salvage Convention by embedding the marine environment under the core of the Convention. This chapter will highlight upon brief background of the situation and the purpose of this paper with limitation and structure of the whole dissertation.

### **1.1 Background**

The years 2017 and 2018 saw several major accidents around the world, such as *Rama 2*, *Agia Zoni II*, and collisions between *BW Maple* and *Dawn Kanchipuram*, *Sanchi*, *Genessia*, *Nu Si Nalini* and *SSL Kolkata*. Some of these vessels were able to make national and international media headlines for days. These two years marked the most dangerous shipping years in Indian maritime history. The collision incident between *BW Maple* and *Dawn Kanchipuram* resulted in bunker spills which spread over a 30-kilometre area (Mazoomdaar, 2017). Another major incident of an explosion was

followed by fire on board the laden tanker vessel *Genessa* with 31,000 tonnes of diesel oil cargo brought attention to responders, legislators, national authorities and the public (News, 2018). Albeit it extinguished the fire, the vessel was damaged beyond repairable condition and declared a constructive total loss [CTL]. Post incident took a longer time to settle technical hurdles between salvors, owners and port authorities to start salvage operations to discharge her entire cargo and bunkers to avoid marine pollution. This incident highlighted the lack of an institutional framework to address the practical issues between salvors, owners and port authorities. This incident was still fresh in the minds of people when another major explosion followed by fire happened on board the tanker vessel *Nu Shi Nalini* at Cochin outer port limit area at a distance of 14.5 nautical miles (News, 2018b). She was en route on a voyage from Mundra to Budge Budge and deviated to the outer port limit [OPL] Kochi in June 2018 for attending cargo leakage into the pump room, the vessel was carrying 2,488 tonnes of Naphtha [a flammable liquid cargo]. Although the last two incidents *Genessa & Nu Shi Nalini* did not result in any oil pollution, they could have done catastrophic scathe to the marine environment and coastal population at large. Another major incident of fire and sinking of the container ship *SSL Kolkata* on the East coast of India [ECI] drew media attention to the oil pollution from bunkers on board (News, 2018c).

These major incidents in the Indian territorial waters drew attention to the media houses, lawmakers, policy makers and response providers toward an increasing number of incidents and most of all incidents involving a probability of scathe to the marine environment. The consequence of marine environmental damage is huge, as seen in cases of *the Torrey Canyon*, *Amoco Cadiz*, *Exxon Valdez* and *Prestige*. The International Maritime Organisation [IMO] has developed a regulatory framework to stave off marine environmental disasters due to escape of oil from the ships. At the same time the Government of India [GoI] incorporated all ratified international legislation into domestic legislation through the Merchant Shipping Act, 1958 [MSA], and also the legislation regarding preventive measures taken by responders to prevent marine environment, which is of utmost concern. The aim and purpose of this paper are highlighted in the next subsection.

## 1.2 Purpose

At the outset of this, it should be noted that there is no intention in this paper to join or support any stakeholders' views or actions. Also, there is no intention to join the existing hot issue of environmental salvage in the industry. The vessel *Nu Shi Nalini* met an onboard incident in June 2018 at a distance of 14.5 miles from the land, and since then salvors have been unable to perform their duties due to protraction of administrative clearances. There are a couple of constitutive reasons behind such protraction in salvage operations, which raised a serious menace to the marine environment on the west coast of India [WCI]. These protractions were attributed to existing boisterous weather during the SW monsoon. Permission to carry out salvage operation in sheltered waters was denied by WCI ports because of conflict between owners and P & I Club, slow decision making from H&M underwriters, and availability of inadequate national legal framework to deal with such situations. Another focus area was damage to the marine environment due to a collision incident between *MSC Chitra* and *Khalijia 3* in Mumbai and JNPT Harbour, which resulted in oil spills of over 800 tons, so the port was closed for 5 days.

The focus area of this research paper is to ascertain statutory contention for superabundant protractions for both cases which sharply deteriorated the condition of ships with no work with salvors to stave off damage to the marine environment. Further, the research will analyse the legislation to allow and regulate salvors in national waters for effective and prompt action to protect the marine environment.

Further, the focus area will be on how to trade off remunerations and obligations of salvors with a perspective of circumstances under which LOF and SCOPIC disputes can be adjudicated in national law. To exemplify, the *Costa Concordia* was the world's largest maritime salvage operation. The charges were three times the actual cost of the ship which are beyond the sustainable limit of the owners (Skift, 2013).

Further, the focus area will be to examine legal provisions for a coastal State to intervene in salvage operations to stave off damage to the marine environment.



The author's aim is to research law-based solutions to practical problems of salvage to protect the marine environment. Recommendations will be given to salvors, ship owners, national governments including IMO for the future by extant law reforms to empower maritime administrations and judiciary systems. The auxiliary aim of this paper is to study the work culture of the salvage industry with new research and developments to reduce their operating costs and making salvage operations more economical and viable. The methodology adopted under this paper is highlighted below.

### **1.3 Methods**

The research methods in natural terms can be determined as adept investigation towards snowballing the sum of human knowledge and as a progression of identifying and investigating a fact or a problem to achieve a scent into it or finding an appropriate solution (Vibhute & Aynalem, 2009). A tactic becomes systemic when a scholar follows certain scientific methods. The legal research method has been used for this paper in the form of empirical legal analysis. Salvage and wreck removal activities are considered as key important responsibilities by the maritime administration and need exceptional attention from governments to protect the marine environment by salvage interventions. Also, there is an urgent need to recognize certain sea areas in and around the Indian coast, which are ecologically super sensitive, where removal of a stranded ship or abandon ship or wreck, as defined in Nairobi International Convention on the Removal of Wrecks, 2007, are necessary as early as possible by the owners. Although, there will be some limitation to complete this paper and highlighted below.

### **1.3 Limitations**

This paper is based upon the empirical legal method, where many data are required based on assumptions and hypothesis situations. The author of this paper is of a technical shipping background and acquainted with legal academics during the master's program at WMU. The other limitation is length and time of the dissertation, which restricted the author to limit the analysis as this subject is as ancient as shipping roots go back to Roman law. Therefore, the author will partly focus on LOF, SCOPIC and Salvage award and remunerations.

## **1.4 Structure**

The structure of this paper has been divided into 5 chapters. All the chapters are structured on the subject as per the name. Chapter 2 is a general overview of the marine environment and salvage dealing with environmental duties, salvage contracts and recent developments. Chapters 3 and 4 deal with international and national legal framework. Chapter 5 deals with an analysis of factual cases which includes last 8 years of accidents analysis and two case studies. Chapter 6 comprises conclusions with necessary recommendations. The marine environment and salvage will be discussed in next chapter below.

## 2. Marine Environment and Salvage

This chapter will focus on the available relevant literature regarding protection of the marine environment, salvage, role of salvors including their legal provisions starting from evolution to until today. The focus will be on reviewing important salvage contracts, understanding the thin difference between threat and danger to marine environment from pollution. Further emphasis of this chapter will be to understand the literature on case laws on salvage and protection of the marine environment including new developments such as SCOPIC and ETVs.

### 2.1 Marine environment

With the development of technology and enhanced awareness of oil pollution impacts among the public at large, the beneficiary of saving the marine environment is not only the ship and cargo owners but also the public at large and coastal State communities. In addition, new types of ships, and in particular large oil tankers and container ships have been worrisome for governments and the public who will be affected because of any oil pollution incidents in coastal waters. Therefore, affected stakeholders will be interested in preventive salvage measures. (Brice & Reeder, 2011; Binney, 1990). Further, coastal state governments should be keener to ensure that preventive measures are undertaken and executed in such a way as to ensure the preservation of greater public interest. The changes in the shipping regarding carriage of dangerous and hazardous cargo are increasing despite having a strong regulatory framework in place. This is as apparent from the spill of crude oil in the incidents of the *Torrey Canyon* in 1967, *Amoco Cadiz* in 1978 and *Atlantic Express* in 1979. These incidents were followed by several other major casualties such as *Exxon Valdez* in 1989, *ABT Summer* and *Haven* in 1991, *Aegean Sea* and *Nagasaki Spirit* in 1992, *Braer* in 1993, *Prestige* 2002 and *Sanchi* 2018 (ITOPF, 2019).

The number of major oil pollution incidents and comparison of the oil spills for the last five decades have been highlighted in Figures 1 and 2. The oil spills into the sea during 1970 to 1979 were recorded the highest accounting for 54.5% of total spills but reduced to 2.8% of total spills during the current decade period (Figures up to 2018).

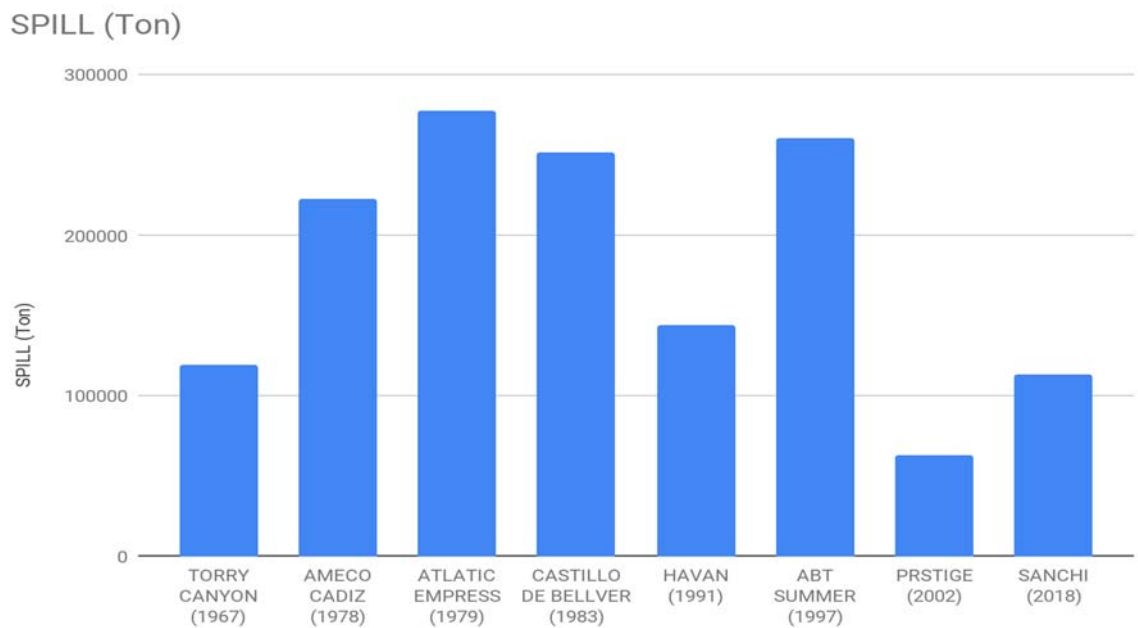


Figure 1: Major oil pollution spills  
 [Source: ITOPI Annual statistics of 2018]

Histogram of Total quantity of oil spilled

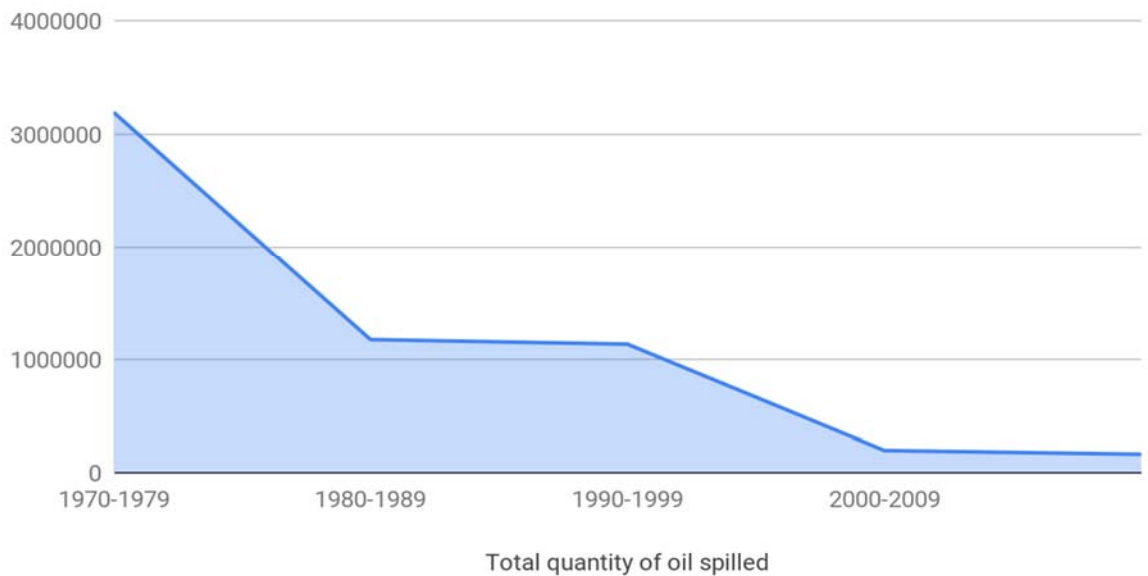


Figure 2: Histogram of total quantity of oil spill data for the last five decades  
 [Source: ITOPI Annual statistics of 2018]

Despite having the best system on board oil tankers, pollution incidents are still happening. In view of the author, there is an importunate necessity to protect the marine environment from such casualties and this should be a matter of prevalent public review. The further study will be to understand between threat and danger to the marine environment in next subchapter.

### **2.1.1 A study of threat and danger to the marine environment**

Article 13.1(d) of the Salvage Convention 1989 refers to the notion of “danger” whereas Article 14.1 to the notion of “threat”. This is a significant distinction in wording with the existence and intent of this distinction borne out by purpose of the Convention. The google dictionary may define the rationale difference between the meaning of the two words as follows;

*Threat - “a person or thing likely to cause damage or danger,”*

*Danger - “the possibility of suffering harm or injury,”*

However, it is unlikely that the environment will be subject to a “threat” in the sense of an express oral or written threat. What will happen is that circumstances may arise where at a particular point in time there is such a threat although subsequent events state that the threat would never have materialised, so that the environment was not in fact in danger. In the salvage, “danger” is determined by a sign to the danger to the salved property in peril at the time of inception of the salvage services considered in the light of the facts ascertained what would have happened in the privation of salvage assistance to the salved property (Brice & Reeder, 2011). This is not the test for the entity of a threat for Article 14. However, a claim for special compensations can be made only if a vessel has threatened destruction to the environment “by herself or cargo”. There is no legal restriction on the cargo which can present such a threat: Article 14 is not limited, likewise LOF 80 was based on threat of pollution by oil, so it can apply to other hazardous or noxious substances (De La Rue & Anderson, 2009).

The explanation may be given as laden tanker is drifting in the central Arabian Sea; the vessel was not a threat to the environment but when the vessel is towed closer to any port on the Indian west

coast, damage worsens and it became a threat to the environment and coast, so the salvors took all measures to prevent damage to the environment and coast. In the true spirit of the Convention salvors may be denied the remuneration provided under Art. 14 of the Convention. What is the salvors and owners' duties toward marine environment and saving property has been discussed under next sub chapter below.

### **2.1.2 Duties relating to the Environment**

In India, the obligation is entrusted upon the Indian Maritime Administration for the enactment and administration of legislation for the control of marine pollution. However, the Indian Coast Guard [ICG] is also responsible for the national contingency plan (GoI, 2019). The duties relating to the environment has been highlighted under articles 8.1 and 8.2 of the Convention. The excerpt is as follows:

Article 8 [Duties of the salvor and of the owner and master]

1. The salvor shall owe a duty to the owner of the vessel or other property in danger:
  - a. to carry out the salvage operations with due care;
  - b. in performing the duties specified in paragraph (a), to exercise due care to prevent or minimize damage to the environment;
2. The owner and master of the vessel or the owner of the other property in danger shall owe a duty to the salvor:
  - a. to cooperate fully with him during the course of the salvage operations;
  - b. in so doing, to exercise due care to prevent or minimize damage to the environment; and....

The duties highlighted are salvor's on the one side and the owner and Captain of the ship in danger on the other hand. This duty would be owed only to the shipowner, the cargo owner and the owner of the property including bunkers in danger under peril. It is to be noted that it is a duty owed not only by the above owners but also by the "master of the ship". The duties of the master of the salvaged vessel is clear and express; on the contrary, there are no equivalent duties of the master of

the salving vessel, save where the salvor is liable for their acts or omissions. The next sub chapter will be to discuss entirely about salvage and contracts.

## **2.2 Salvage**

The notion of marine salvage derives from an antediluvian Roman law doctrine that one who voluntarily dares his own life and property to save the property becomes eligible for a reward (Liu, 2019). Salvage has been historically related to saving a property in maritime peril at sea. The salvage operation has perennially existed since the evolution of ships to help and render assistance during sea perils while at sea; traditionally, the salvage industry was as old as shipping. The law of the salvage concept was founded on the principle of “No cure–No pay”, which means there must be some cure or success to get some pay, or else no payment will be made or entitled for the services rendered during an emergency. The pure salvage is defined as “no cure–no pay”. In the English law the right of a salvage ascends when a person voluntarily (with no pre-existing contractual or other legal duties to act) contributes to safeguard at sea any property, cargo, freight or other known objects of salvage from perils. In the privation of any precontractual agreement for fixing the reward, the salvor, upon the maritime property being salvaged and brought to a place of safety, may recover salvage remuneration not greater than the value of the property salvaged calculated at the end of the salvage services (Brice & Reeder, 2011).

The salvors are the first aid providers to any maritime casualty at sea and the most relevant party to any salvage operations. There are two types of salvors, namely casual salvors and professional salvors. Casual salvors are those who are responding to a distress call with the aim to save human life on humanitarian grounds and the professional salvors are the one who render assistance to disabled vessels for economic reasons to make maximum money out of an incident (Milwee, 1995). Incidents may happen despite of knowing that vessels are designed and maintained with best international standards. When such incidents happen on board ships, shipowners called upon third parties for immediate assistance. The service providers are the seafarers with best qualifications, experience, and skills in handling maritime perils at sea, known as salvors. However, each salvage operation is unique in its combination of problems (Brady, 1960). Salvors are important service providers to owners and insurance communities during maritime perils at sea

such as fire, grounding, collision., offering pollution prevention, response to marine casualty, towage, cargo saving, wreck removal and other similar activities. Once salvors arrive on sight of the casualty, based on the assessment salvors enter a contract for payments of a salvage award. Under the salvage contract, the salvor receives a portion of the “salved value” in return for salvage services. The next sub chapter will highlight upon natural salvage and contract salvage.

### **2.2.1 Natural salvage and contract salvage**

There are different types of marine salvage such as pure or natural, contract, civil, smart, historical and naval salvage. However, due to limitations only pure and contract salvage will be discussed. Albeit the right to recover the salvage remuneration is a right which may accumulate autonomously of contract, most salvage services which are provided, with skilled salvors, are under a written salvage agreement or contract. In ancient times, courts exercising an Admiralty jurisdiction all over the world recognized that promises demanded by a salvor from those whose lives and property had been put into unforeseen maritime perils at sea could be of an immoral nature; either the court would not recognize them or at least would examine them with caution. In those early days, and well into the beginning of the nineteenth century, salvage was awarded for individual services (Brice & Reeder, 2011). The salvage agreements were started receiving attention during the 19<sup>th</sup> century and that era saw a new development in the maritime transport industry, such as an invention of steam-driven ships, steam driven tugs; and the provision of such a vessel contributed many shares during apportionment of a salvage award by courts. Towage and salvage contracts turn out to be much more common. The very first professional salvors to be in reality in about 1875 and by about the turn of the century were using standard form salvage agreements ( Brice & Reeder, 2011). The first such contract of LOF “No cure No pay” was adopted and used in 1892 (Mandaraka - Sheppard, 2013) and later 1908 it was more standardized and then revised in 1924, 1926, 1950, 1953, 1967, 1980, 2000, 2011 (Tanaka, 2014; Andreakos, 2017). There are other regional contract forms on the principle of “No cure - No Pay” such as “Moscow form”, “Peking form”, “Hamburg form”, “Paris form” and “Turkey form”, which are in use. Also, the salvors maritime lien is enforceable against the *res* regarding salvage services extended under a salvage contract: *The Goulandris* (Brice & Reeder, 2011).



Under traditional custom, pure salvage (also known as "merit salvage"), the service is purely voluntary and without any agreement between the owner of the ship and the salvor. The affinity is one which is implied by law. The salvor under pure salvage must bring his demand in a jurisdictional court, which will award salvage based upon "merit" of the activities and salvage property (Schoenbaum, 2018). However, the 1910 Convention maintained the status of customary principle of "No-cure No - pay". Until the 1970s, the traditional system of salvage was working well, but because of the development of larger crude oil tankers and subsequent disaster of various vessels followed by the *Amoco Cadiz* in 1978, lead to the adoption of the 1989 Salvage Convention. This Convention partly changed the customary tradition of salvage to "No cure- some pay". A salvage contract is agreed and cascades to be interpreted under the principles which govern the ordinary law of contract except in so far as specific principles, weird to salvage law, are relevant. There may be surroundings in which another form of contract not amounting to a salvage contract (i.e. towage contract) already exists between the party claiming salvage and the owners of the property saved during performing in which circumstances arise in which it is said salvage is recoverable notwithstanding the pre-existence contract. There are various contracts under salvage such as contract salvage which includes LOF (No Cure - No Pay), Civil salvage (offered by Governments), or Direct contracts (Chiu, Liu, Chang, Tseng, & Chen, 2017). A contemporary illustration of the contract salvage is a fixed price salvage contract available from the International Salvage Union [ISU], which is the sub - contract lump sum agreement "**SALVCON 2005**". This agreement is used by a salvor employed under Lloyd's open form, or a similar contract, who aspires to involve supplementary aid, but on a consolidated basis, as discrete from the used ISU award sharing subcontractor's agreement, or daily hire subcontract agreement "**SALVHIRE 2005**" (House, 2014). This form is very comprehensive as compared to Lloyd's open form and contains a total of 8 pages; part I comprises boxes, in which operational and financial matters will be entered. Part II contains total 27 clauses, which form part of the terms and conditions of the agreement. The important part of the contract is box no. 17 "Law and arbitration procedure" which is required to be filled out at the time of concluding agreement and by selecting a place of arbitration, which will empower to settle all disputes or payment awards under national laws and regulations in force in that place. The next sub chapter will be discussed about the role of insurance in salvage industry.

## 2.2.2 Insurance within the context of salvage

It was stated that there was no trail affecting Marine Insurance [MI] before the end of the 16th century, so the British Government passed the first Act in 1601 to establish insurance courts (Gurses, 2015). The insurance is a tool through which a company or the State pledge to provide a surety of compensation for losses, damages, illnesses, or death in exchange for reimbursement of a specified premium (Gurses, 2015). Ship operations at sea has always been a challenge for years because of unpredictable perils with almost no immediate assistance available and in the eventuality of ship loss, ship owners have to pay for losses. To protect losses and third-party claims, ship owners insure their assets and liabilities arising out of shipping losses by means of insurance companies. As on 01 Jan 2018, around 93,161 commercial ships were operating all over the world (UNCTAD, 2018). There are different variations of insurance in the market, mostly known as Marine Insurance and Protection & Indemnity Insurance (P&I Club). The marine insurance provides “hull and machinery” coverage for vessel owners, and cargo cover for cargo owners. Marine hull insurance policies cover the losses against the insured perils for a specified period subject to proof of causation (Song, 2014). The marine hull policies include losses, such as total loss of insured assets including actual and constructive total loss [CTL] and partial losses, such as particular average [PA], general average [GA], salvage charges, sue and labour charges and 3/4th collision liability claims ( Gilman, Blanchard, Templeman, & Hopkins, 2016). In recent cases a third-party liability arises in marine pollution when a general average act results in escape or release of oil or other pollutants into the sea (Malashikna, 2010). The York-Antwerp rules provide detailed provisions on third party liability, which were derived from English judgement on *Austin Friars* and allows GA contribution to damage to oil or other pollutants but does not cover the cost for clean-up, or third-party liabilities (Gilman, Blanchard, Templeman, & Hopkins, 2008).

P&I Clubs provide coverage for open ended risks, where customary insurers are loath to insure. The traditional P & I club provides third party liabilities arising out of cargo damage during carriage, war risks, risk of environmental damage due to oil pollution and SCOPIC under LOF during marine salvage (De la Rue & Anderson, 2011). There is an international group of P&I Clubs [IGP&I] comprising total 13 international P&I Clubs to collaborate to bestow funds in the event

of major claims using a refined system to ascertain liability. Insurance is playing a greater role in the shipping industry for safeguarding shipowners' interest. The salvage industry has evolved over the centuries and developments are taking place at slow pace. However, recent past seen biggest changes in the salvage industry some of them are highlighted below.

### **2.2.3 Contracts within the context of International Salvage Convention, 1989**

The 1989 Salvage Convention provides a window for concluding contracts, wherein parties can choose any types of contracts that suits the most based on type and situation of maritime casualty, except the extant provisions. Article 6.1 of the Convention provides salvage contracts and Article 6.3 contained important exception which does not detract from existing principles regarding the liberty to make salvage contracts. This convention shall apply to any salvage operations save to the extent that a contract otherwise provides expressly or by implication.

The Convention provides the general right to contract out of the Convention. However, the Convention does not define the contract, its essential elements, nor how it has to be completed or destined by it.

The salvage convention provides three important changes, namely;

- (a) the master shall be having power to conclude contracts for salvage on behalf of the owners.
- (b) there is a special provision and an exception to the normal rules as to the freedom to contract affecting salvage contracts and duties as regards protecting the marine environment.
- (c) Art. 7 allows a contract may be annulled or changed if it has entered into danger under undue influence or because of the influence of danger or its terms are unfair, or if the payment under the contacts is, in an excessive variation for the services rendered (Mandarka-sheppard, 2013).

### **2.3 New Developments**

The 1989, Convention addressed the shortcoming of the 1910 Salvage Convention and included special compensation under Article 14 as a new development at that time. After the adoption of

the 1989 Convention, a number of new developments have taken place such as SCOPIC, ETVs and SOSREP.

The maritime industry is passing through a major transition from conventional to a technological era. The new ships (box ships) are designed in a more sophisticated way to carry more boxes complying with minimum requirements of SOLAS for towage and salvage (IMO, 2014; IMO, 1998). The question is: Why is the industry not taking a lead to revisit the extant Convention on salvage to incorporate new developments for salvage and towage? Why are the responsible organisations deviating from the practical problems of the industry? The answer this we need to be understood that the salvors, the first aid providers to vessels at sea may upgrade to enhance new skills to protect the marine environment in each and every scenario of a salvage operation. With the advancement of technology and awareness in the satellite age, the pollution threat has become more alarming and responsive than saving the property itself. Topically, salvage companies are equipped with the latest equipment and trained man power to minimize and prevent marine pollution. The fast emergence of the mega ships including EEE to G class container ships, LNG Carriers, VLCCs, ore carriers, passenger ships are the greatest challenge to the future salvage operations (ISU, 2019b). The larger and bigger the size of such new class vessels will make salvage hard but not unworkable. Salvors are invested in new technologies for innovations to maintain their reputation as successful salvors.

Another new development in the salvage industry is that they are able to recover the oil from ships lying at the seabed (ISU, 2018), but the question is; Is the IMO regulatory framework in place for quicker and safer means to extract oil from a foundering vessel or after sinking? The answer is very clear and there are no such specific legal provisions available under SOLAS which provide design aspects of tankers or other ships which allow quicker and safer means to extract oil from ships.

Also, the use of bigger and stronger helicopters for carrying out a quick assessment of the stricken ships during maritime perils helps salvors to render assistance in difficult conditions. Further, the use of drones and helicopters are efficient for salvage operations. However, the use of helicopters and drones are controlled by coastal States and require their prior permission to use for rendering assistance to disabled vessels.

The other new developments in the industry are as follows:

### **2.3.1 Environmental salvage and Special Compensation P&I Clubs**

Salvage is a traditional right of salvors who preserved property and cargo in maritime peril. Until today salvage is being paid by salvaged property owners of ship and cargo on a pro rata basis by means of general average. However, since the development of large tankers in the 1960s, which led to serious casualties (i.e. *Torrey Canyon*, *Atlantic Express*, *Christos Bitas*) raised the alarm and concern for marine environmental damage among the coastal States and public at large (Bishop, 2012). After the incident of *Amoco Cadiz* in 1978, the industry developed a first salvage compensation to salvors by creating safety net provisions in LOF 1980 and under which salvors to “exercise his best endeavours to prevent the escape of oil from the vessel” to entitle for the additional award even if the property was not salvaged. It incorporates a second attempt to address the issue of environmental concerns into Articles 13 and 14 of the 1989 Salvage Convention (Nummery, 2017; Mandaraka-Sheppard, 2013). However, with the incident of *the Nagasaki spirit* which went through a 5 level of judiciary, the House of Lords held the judgement that Article 14(3) of the Convention did not consider the fair rate of tools and personnel and profit elements (Liu, 2018). The Lord Mustill interpreted that even if salvors do not result in saving the environment, it does not mean “no pay”, he is entitled to an indemnity against his expenditure and to receive some contribution (Gilligan, 1998). Further, the judge highlighted that an undeclared parallel mechanism is already functioning since the development of safety net provisions under LOF 1980 (*The Nagasaki Spirit*, 1997). Also, this judgement created concern among the industry about the different interpretations and special compensation for salvors. Post judgement industry developed a new clause in LOF called the special compensation P & I club [SCOPIC] to provide salvors to make benefits out of assistance provided for prevention of marine environmental disasters. The SCOPIC was a replacement of salvors remunerations provided under Article 14 of the Convention (CMI & Khosla, 2010). However, the obligation to protect the marine environment upon salvors under LOF & SCOPIC is stronger than the Salvage Convention 1989 (Rose & Kennedy, 2017). Another important issue with the *Torrey Canyon*, *Amoco Cadiz*, *Erika*, *Castor*, *Nu Shi Nalini* and so many other vessels is that there was substantial time lost in negotiations between salvors,

owners, maritime administrations, and ports but so far this issue never got attention even at the birth time of the International Salvage Convention, 1989.

ISU took a lead to revise the Convention to include a separate environment award involving various stakeholders starting from Lloyds LOF committee in 2007 and 2008 but did not make any progress because of opposition from ship owners and P & I Clubs. ISU then approached the Comité Maritime International [CMI] to discuss this matter, which agreed to form an international working group [IWG] on salvage. The outcomes of the IWG were deliberated in CMI meetings in London and Buenos Aires in 2010 and subsequently in 2012 Beijing Conference of CMI discussed the IWG report and reviewed not only environmental issues but also the whole Convention. However, again it did not convince ship owners and P&I Clubs (CMI, 2011). No further literature was available to review the progress of the independent environmental award. In view of the author, it is concluded that oil spills are regulated under the MARPOL and the OPRC Convention by coastal States and casualties are responded by salvors. During rendering assistance to stricken ships, salvors are required to observe due care so that no further oil is leaked and if they are required to transfer the cargo where the probability of risk of damage to the marine environment arising, the SCOPIC clause will be effective. In addition, there are several channelling provisions available under other international conventions such as LLMC, Wreck Removal and Fund conventions through which their efforts and compensations may be invoked.

### **2.3.2 Emergency Towing Vessels**

The concept of Emergency Towing Vessels [ETV's] has emerged in the industry under which States are hiring or having their own vessels to provide an emergency response system in their national waters, such as India, the USA, Australia, the UK and China. The notion of ETV started after the new salvage Convention came into the picture. GoI has deployed the services of a single emergency towing vessel [ETV] through M/s. Resolve Salvage & Fire (India) Pvt. Ltd. from 2012 onward on the west coast of India [WCI] during SW Monsoon period to render assistance to stricken ships in the area (DGS, 2012). Similar to Indian ETV arrangement, many other States are providing ETV services in their national waters such as the UK, Australia, China and the USA (Bishop, 2012; CMI, 2011).

In the United States of America [USA] the salvors are regulated under the direct control of regulatory bodies and only authorised and approved salvage service providers can provide salvage services in their national waters. All tankers and oil barges calling US Ports must list their vessels in their vessel response plans [VRP] approved by the USCG, which is a salvage and firefighting [SMFF] contractor having capacity to meet regulatory requirements. Contract with SMFF services must have a system of payment mechanism so that no delays in response because of funds. In similar lines, China has also started a marine pollution emergency preparedness and emergency response system under which any tanker vessels calling Chinese ports must have an agreement with local clean-up contractor approved by maritime safety administration [MSA] based on their qualifications and response capabilities (Chung-Sheng Chiu et al., 2017).

### **2.3.3 Secretary of State Representative**

The Lord Donaldson's report review of salvage and interventions and their command and control, they highlighted that the conflict of interest could exist even between the various government agencies of the country. Therefore, it was recommended that an individual called the Secretary of State's Representative Maritime Salvage & Interventions (SOSREP) be appointed as a pivotal point for all State agencies and act as an interface between salvors and owners (Li, 2005b).

The Government of the UK has appointed the SOSREP as per the EPC Regs 2002, made under section 3 of the Pollution Prevention and Control Act 1999, provides powers for the Secretary of State for all kinds of pollution emergency responses including salvage (Ekhaton, 2016; Li, 2005). The case of *MV Napoli* in 2007, which was transiting the English Channel on its way to South Africa was affected because of flooding; therefore, immediate decision of SOSREP in consultation with French authorities ordered a vessel to a beach on a beach line by Portland. The quick action resulted in minimum damage to the vessel and pollution which was appreciated around the world (Chircop, 2002). The detailed overview of the international legal framework has been discussed in next chapter below.

### **3. Overview of international legal framework**

This chapter will be concentrated on international legal frameworks related to prevention of marine environmental damage and salvage. The aim of this chapter is to review the extant laws and to highlight the essence relevant for this paper. There are other contemporary laws available related to control and prevention of marine environmental pollution but due to their indirect relevance to this paper, they will be discussed. The larger discussion will be United Nations Convention on the Law of the Sea, 1982 [UNCLOS] and its relevance to other conventional law treaties regarding salvage, marine environment and remuneration. By the late 1960s knowledge of the consequences of pollution on coastal environment, fisheries and human beings became prevalent, which may impetuously harm the marine environment, biodiversity, and human health (Desai, Gavouneli, & Koivuova, 2017; Birnie, Boyle, & Redgwell, 2018). Despite its vital predominance, the rules and regulations regarding marine pollution have attained less attention until recently due to low situational consciousness of environmental protection (Tanaka, 2012). It is only after World War II that global regulations of marine pollution has commenced. The first multilateral treaty regulating oil pollution was adopted in 1954 (IMO, 1954). Later, MARPOL 73/78 was adopted and became the key instruments to prevent marine pollution from ships at sea. There are 157 member States with 99.15% of the world fleet (IMO, 2019). The MARPOL and Oil Pollution Preparedness, Response Convention [OPRC] required vessel must hold a shipboard oil pollution emergency plan [SOPEP] to stave off marine environmental damage (IMO, 1990; IMO, 2017). Both conventions impose a mandatory obligation on masters to report any incidents of actual discharge or probable discharge of oil to the nearest coastal State. The response of the coastal State will be based on the event, extent and consequences and the nature of the incident. Under the OPRC, it is the mandatory obligation of States to develop a national emergency plan for responding effectively to oil pollution incidents (IMO, 1990). Despite the clear differences in the international regulatory approach, the current rules do not address protection of the marine environment



(Saloman & Markus, 2018). The UNCLOS is the blueprint of all Conventions related to protecting the marine environment. The detailed relevant provisions of the UNCLOS will be discussed below.

### **3.1 United Nations Convention on the Law of the Sea**

In the late 1950s, the United Nations International Convention came into existence named as International Convention on the High Seas 1958. This Convention was represented as the first international public law to address oil pollution concerns for the prevention of marine environment. This Convention obliged States to take action for prevention of oil pollution from vessels, pipelines, exploitation and exploration activities and pollution by dumping of radioactive materials.

The UNCLOS, 1982 came into force in 1994, which is a pervasive international customary public law but the discussion will be limited to Part XII (Article 192 to 237) related to “*protection and preservation of the marine environment*”. Article 192 obliged States to take protection and preservation measures for the marine environment.

UNCLOS deals with many pollutants which are affecting the marine environment such as pollution from a ship sourced, land-based, seabed activities and atmosphere and provides a legal foundation for various international conventions for detailed protection and preservation measures. Article 211 is regarding pollution from vessels and provides an obligation on States to adopt laws for the reduction, prevention, and control of marine environment pollution from vessels. Also, Article 211 provides a legal platform for international conventions to prevent marine pollution from ship 1973/78 [MARPOL] and the Nairobi International Convention on the Removal of Wrecks [ICRW]. Article 221 provides a legal platform for ICRW and the International Salvage Convention 1989, which is also connected with the ICRW Convention to control and minimize marine pollution from vessels.

The legal framework under UNCLOS for prevention of marine pollution is elaborated in Figure 3 of “Range of marine pollution and Convention interfaces” such as Public, Regulatory and Private laws (Mukherjee & Brownrigg, 2013). Figure 4 explains sources of marine pollution such as shore

based and land based; however, further review of this would be of limited help to this paper and may not be relevant. The next sub chapter will discuss about territorial seas, innocent passage and contiguous zone.

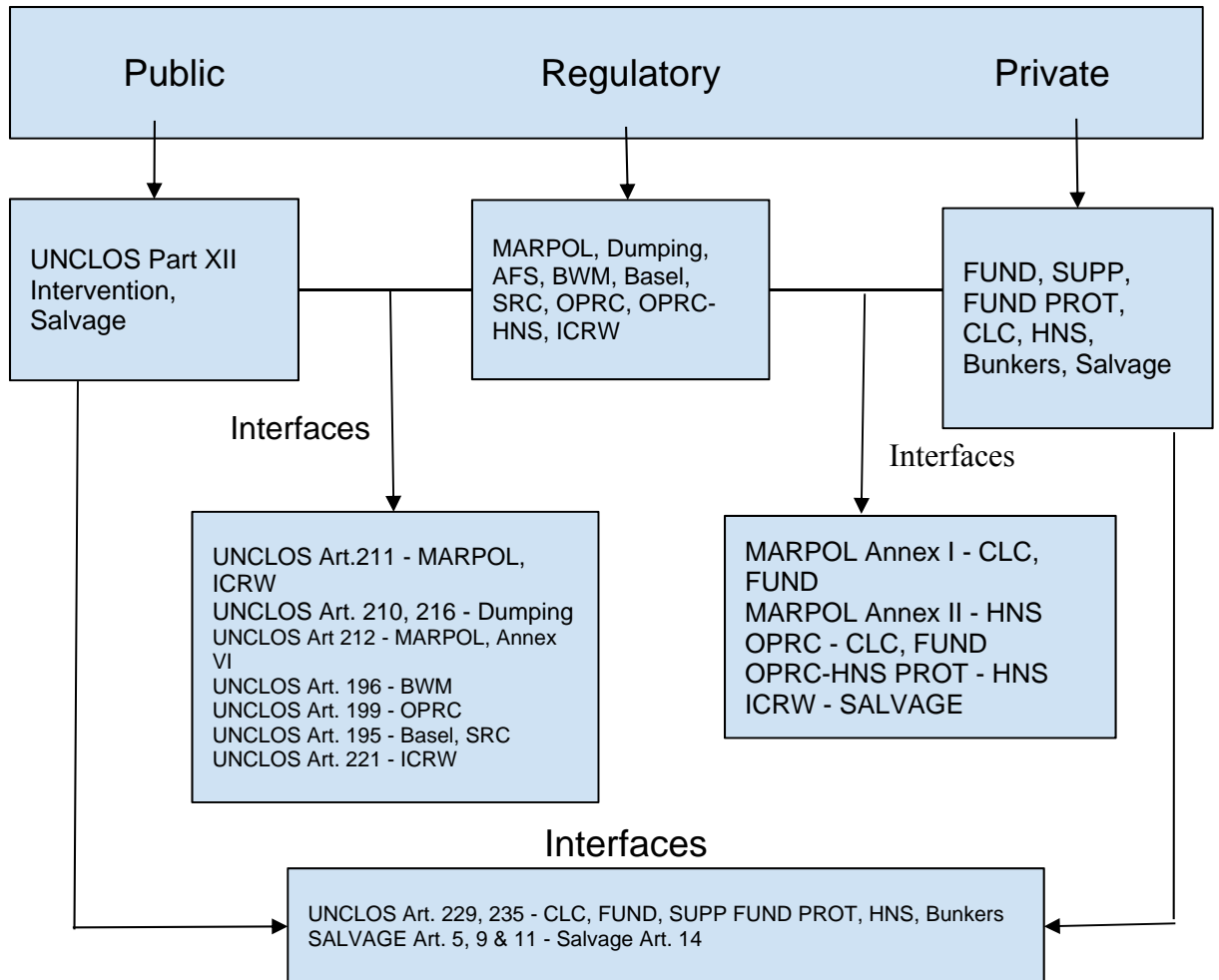


Figure 3: **Range of Marine pollution and Convention interfaces**

(Source: PK Mukherjee and M. Brownrigg, *Farthing on International Shipping*, 4th Edn. (2013))

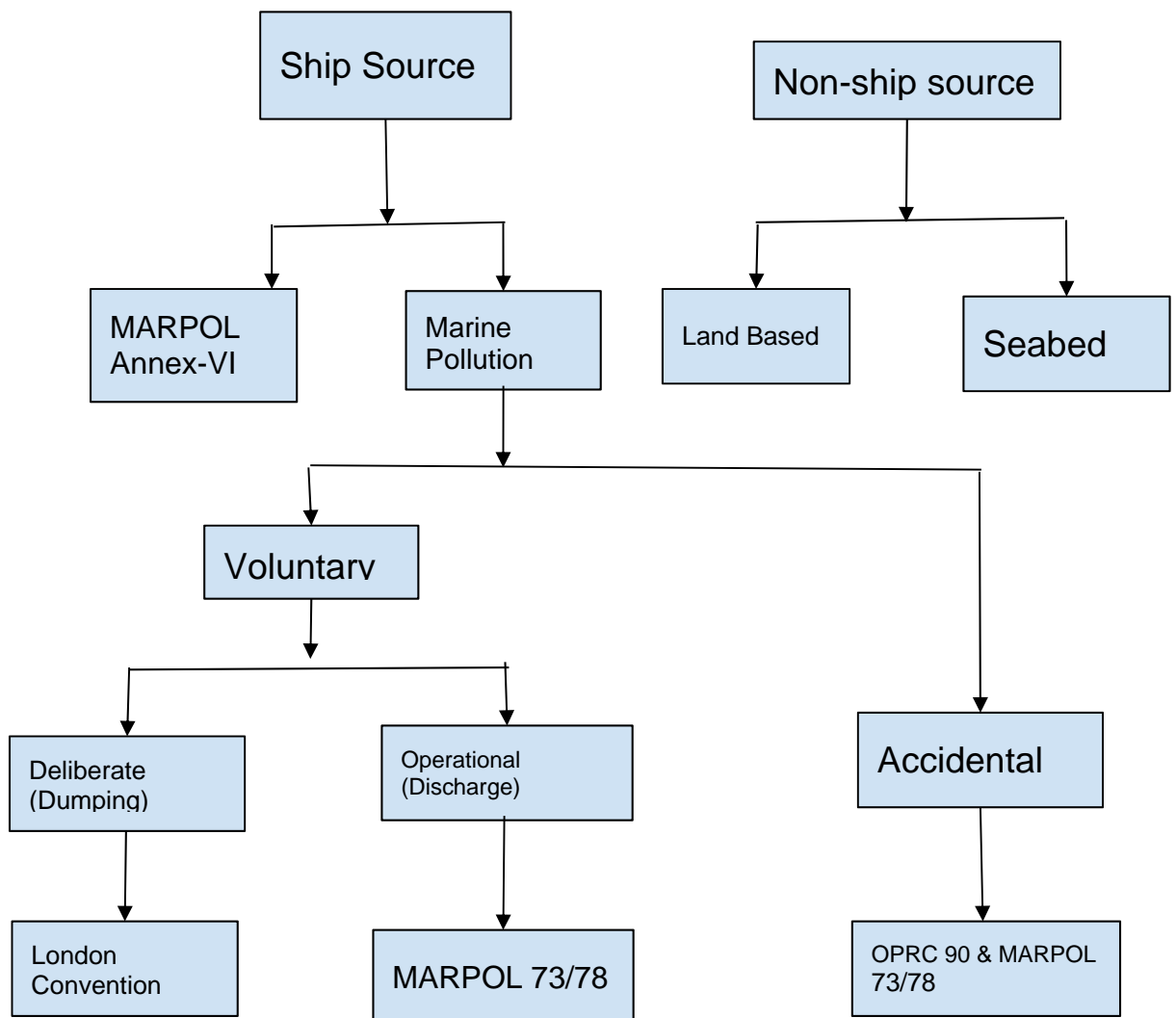


Figure 4: **Sources of marine pollution**

(Source: PK Mukherjee and M. Brownrigg, *Farthing on International Shipping*, 4th Edn. (2013))

### 3.1.1 Territorial sea, Innocent passage and Contiguous Zone

If vessels seek assistance or shelter in places in the territorial sea or while in a contiguous zone, for instance, at an open area close to port, the condition is different from the internal waters. The sovereignty of a coastal State extends beyond land boundaries and internal waters, and for an archipelagic State, its waters up to adjacent area of sea, described as the territorial sea. The sovereignty over the territorial sea is exercised subject to this Convention and with other rules of

international law which extends in territorial waters up to air space, seabed and subsoil. Whereas UNCLOS provides rights of coastal States under Art. 33 of a contiguous zone, the sovereignty extends for limited things such as for stopping breach of its customs, immigration, fiscal, or sanitary laws and rules inside territory or territorial sea. The States' duties - not endowing rights have been imposed under Articles 195, 198 and 225 of the Convention which are self-explanatory in nature.

However, such laws should, as per section 3 of Part II of the Convention, not affect innocent passage of other flag vessels. This is compatible with the applications of Article 24(a), which defines that *'the coastal State shall not impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage'*. Article 221 is very relevant, which states that *'Nothing in this Part shall prejudice the right of States... to take and enforce measures beyond the territorial sea proportionate...'*. Thus, the blueprint prepared by UNCLOS is clear. Within the territorial seas, coastal States enjoy sovereignty rights except the right of innocent passage. Right to intervene in its contiguous zone, EEZ and on the high seas are acknowledged, but no particular regulations for intervention in the territorial sea are available; within the context of such a situation, the primary principle of 'sovereignty subject to innocent passage' is exercisable.

It is required to review the notion of 'innocent passage', to ascertain whether vessels in perils still relish that right. Art. 18 states that *'Passage means navigation through the territorial sea...'*, and *'Passage shall be continuous and expeditious'*. However, passage means slowing down and anchoring subject to incidental breakdowns to vessels and necessary by force majeure or maritime peril for the purpose of rendering assistance to persons and ships at sea. The rights of a coastal State for taking measures to protect the coastline from pollution is defined in international law and the applicable provisions include: UNCLOS, Articles 194, 195, 198, 199, 211, 221, 225. However, it is not clear whether such provisions are having any impact to acknowledge the right of the Coastal States. Paragraph 4 of Article 211 acknowledges the sovereignty rights of the coastal States, which states *"Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from*

*foreign vessels, including vessels exercising the right of innocent passage*". In-depth details of coastal States' rights and obligations will be highlighted under next subchapter.

### **3.1.2 The rights of a coastal State under international law**

Under the purview of international law any State can invoke and act for the fundamental principle of protection when its security is at stake. Maritime domain protection was used as a protective belt while claiming to a territorial sea. In the early ages, the coastal States have taken protection measures against illegal foreign fishing, illegal immigration matters, quarantine, drug trafficking and contraband (UN, 1982).

The principle of protective measures is thus available in various areas of the Law of the Sea. The meaning of security has broadened beyond the sovereignty protecting actions, which include the **environmental security** of the coastal State and population living in these areas (Chircop, 2002). The rights of coastal States can limit the extraordinary rights of foreign ships in territorial waters for protection of environmental security of a coastal State. These rights include both legislative and enforcement rights. The international customary law provides coastal states to take "required steps" to stop passage which is not innocent in its territorial waters (Nicholson, 1990; UN, 1982).

The coastal State may take required measures to secure compliance with its situations for a vessel's entry to ports or internal waters. Further, the most important right of a coastal State is to suspend the right of innocent passage for a specified time period and area. Another example of exceptional rights of a coastal state relates to protective actions against any ships on the high seas. These exclusive rights emerged after the incident of tanker vessel *Torrey Canyon* off the coast of Brittany, UK, which resulted in the development of an international convention relating to intervention on the high seas in oil pollution casualties, 1969. Article 11 of the International Salvage Convention 1989 provide an obligation on States to cooperate but does not provide any obligation on coastal States to accept ship in distress into their ports or in to their territory. However, the places of refuge matter were discussed in IMO at the time of drafting of ISC, 1989 and post incident of tanker *Castor* and *Erika*. The working group on an oil tanker safety and environment matters incorporated

into their agenda items, such as “the examination of the need to establish principles for coastal States, acting either individually or on a regional basis, to review their contingency arrangements regarding ports of refuge”. Later in November 2003, IMO adopted two resolutions A.949(23) *Guidelines on places of refuge for ships in need of assistance* and A.950(23) *Maritime Assistance Services (MAS)* for ships in distress to provide immediate help and support at sea. Further, these guidelines were supported by IMO Circular “MSC.1/Circ.1251 on Guidelines on the Control of the ships in an emergency” (MSC, 2007). These guidelines provide detailed guidance to ship masters, salvors and coastal States to follow in deciding a place of refuge for vessels in distress and also provides a clear line of responsibilities in emergency situations at ship and ashore. However, these IMO resolutions are guidelines which do not form part of the mandatory provisions of international law. The legal rights of coastal States for the protection of their coastline from pollution is well defined in international law. Article 11 of the ISC provides an obligation on coastal States to offer refuge and cooperate with salvors, public authorities and other stakeholders to ensure an effective and successful execution of salvage operations for the purpose of saving life and property, including preventing damage to the marine environment. With a collision and release of oil into the sea from *BW Maple* and *Dawn Kanchipuram* in Ennore Port, India, both damaged vessels were brought inside a harbour, whereas *Nu Shi Nalini* was not allowed to enter in sheltered waters although she was stable at anchor without power and inert gas. The question is whether the GoI has fulfilled obligations enumerated under international law for rendering assistance to disabled ships (not causing imminent oil pollution threat) to provide a place of refuge or shelter waters. Who is liable (i.e. Ports or Salvors or GoI) to hold a vessel at an anchorage for a long time to allow her to succumb to maritime peril which could have caused catastrophic damage to the marine aquaculture, coastline, public beaches and coastal community at large? If there had been pollution, salvors could have taken the port authorities to the Court for negligence for not providing a place of refuge (Chircop & Linden, 2006). In the author's view the ports could have taken a quick decision whether to allow refuge or otherwise and would have followed the Risk based decision making approach (Li, 2005a). The next sub chapter will discuss on rights of a distressed ship in territorial seas, contiguous zone and also with perceptive of refuge.

### **3.1.3 The rights of a distressed ship under international Law**

The ships have enjoyed customary rights to seek a port of refuge in maritime ports and sheltered waters during distress at sea under admiralty and international jurisdictional law. These laws are ancient and developed in a state practice, treaty laws and case laws and in use over 200 years. The two high-profile cases of *the Erika* and *the Castor* in recent times have triggered the question of validity of admiralty and international customary laws for customary rights of a distressed ship. *Erika* sank because of rough seas in the Bay of Biscay in 1999 and caused socioeconomic and environmental devastation for the coastal areas of French populations. Questions have been raised by *the Erika* incident whether a port of refuge given by France, would have reduced the damage to coastal communities. The tanker *Castor* laden with cargo on a passage from Constanza, Romania to Lagos, Nigeria developed a 20-meter-wide crack on the main deck off the coast of Morocco in heavy weather. Salvors responded to a distressed ship but several coastal states denied the port of refuge, such as Morocco, Spain, Gibraltar, Malta and Algeria. The vessel had navigated over 1000 miles as a “leper ship” up to the eastern basins of the Mediterranean Sea before salvors could discharge the cargo (Chircop, 2002). However, the guidelines recognized by IMO state that the longer the stricken vessel stays at sea, the more the risk involved due to weather conditions at sea (Donner, 2008). In case of the vessel *Nu Shi Nalini*, shipowners mobilized salvors for immediate assistance to a distressed vessel but several ports did not grant port of refuge permission on the WCI for salvage operation. The exceptional rights extended to a ship in distress is for humanitarian and safety reasons, but these rights are less dominant or not known in a modern context. In recent developments, including national case laws, have put clear provisions regarding the right of refuge and privity between the humanitarian rights to save life and measures to save the ship and cargo as economic rights. With *MV Toledo*, the Admiralty High Court held that coastal states may refuse the right of refuge except in cases of saving human life and right of refuge still existing in international customary law (Soyer & Tettenborn, 2013; Tanaka, 2014).

### **3.2 International salvage laws**

The salvage law has had respect for principles and obligations of salvors on the one hand and owners of the property and cargo in maritime peril on the other hand. The blueprint of the current

salvage law was first established by the decisions of the Admiralty Court in the eighteenth centuries (Baughen, 2012). At the end of the eighteenth century there was an urgent need felt that unification of salvage rules were required and, a matter discussed and later in the beginning of the nineteenth-century world fraternity adopted the first of its kind of salvage Convention named as “Convention for the Unification of Certain Rules of Law respecting Assistance and Salvage at Sea” *Brussels, 23 September 1910* [1910 International Convention on salvage]. This Convention has highlighted the traditional system of “No cure - No pay” for the salvors. During that time, the value of the ship was the prime important task for saving the property because of limited ship size and less cargo carrying capacity. The salvage award was based on a general average of the salvaged property. The ship size started increasing and cargo carrying capacity as abundantly increased. In the late 1960 and 1980s, a number of large oil pollution incidents took as discussed in chapter 1 and 2 brought huge attention to the role of a salvors towards environment protection and again the liability salvage was gaining momentum among the salvage community i.e. ISU, Salvor’s, P&I Clubs, insurance providers and underwriters.

All stockholders agreed to revise the 1910 Convention on salvage and IMO adopted a new Convention called the International Convention on Salvage, 1989. The significant changes with regard to environmental aspects were incorporated in Article 1(d), 13.1(b) and 14 of the Convention. No pay-No cure principle was changed to No cure - Some pay, if the salvor has taken precautionary steps to protect and control the damage to the environment even though property was not salvaged, at least the salvor may get the out-of-pocket expenses plus 30% to 100% of total out-of-pocket expenses based on arbitrations or tribunal decisions.

The biggest vicissitudes this new Convention brought in was an inclusion of environmental damage and payments, changes in No cure- No Pay principle and skills and efforts of the salvors in preventing damage to the environment, which should be taken into consideration while fixing the reward for salvors under traditional salvage.

The other important aspects of the Convention relevant for this paper will be reviewed and discussed in other parts of the dissertation. The obligation on masters and States for rendering assistance has been discussed in next sub chapter.



### **3.3 Obligation on rendering assistance under salvage**

The foremost challenge in any maritime perils at sea is to make a decision whether outside assistance is required or not. This decision is based on the type and severity of maritime perils and the experience of the ship captain (ICS & OCIMF, 1998).

The obligation on States to render assistance was incorporated and part of international customary law and other international laws. The obligation to render assistance under customary international law to ships was well established since ancient times and the wording of the assistance has been divided into assistance to save human life on humanitarian grounds and assistance to save the ship and cargo on economic grounds (Chircop, 2002). In today's time, a distress message can be relayed and communicated to shore authorities by the Global Maritime Distress and Safety System [GMDSS]. With the capsizing of the 47 foot catamaran *Paragon I* off Hawaii on March 2004, an Emergency Position Indicating Radio Beacon [EPIRB] was submerged into the water, and was activated and sent a signal miles away, so the captain of a fishing boat arrived within 3 hours on the sight and rescued passengers on board (Severance, 2006). To render assistance on economic grounds, some national governments have deployed their own emergency towing vessels capable of emergency towing, salvage support, surveillance operations, underwater recoveries, oil spill containment, search and rescue, marine firefighting, assisting grounded vessels, logistic support, respond to SOS calls, casualty evacuation and duties directed by coastal States. The obligation on salvors and shipowners is to get the best available meteorological data on weather conditions from relevant meteorological department prior to salvage operations (Gilbert, 1998). These data include, astronomical tides, wave setups, storm surge, waves, Coriolis forces, Seasonal variations, Tsunamis and Climatological variations and artificial variations (ASNE & JMS, 1994). The salvage and wreck removal is closely associated and discussed within the notion of salvage in next sub chapter.

### **3.4 Wreck removal Convention, 2007**

The Nairobi International Convention on removal of wrecks, 2007 [Wreck removal Convention] was adopted by the IMO for the uniform interpretation of removal of wrecks from the exclusive economic zone [EEZ] of the States. However, States are at liberty to choose the jurisdiction of the

Convention to territories including territorial sea by submitting information required by Article 3 (2) of the Convention.

The concept of wreck is clearly defined by Art. 1(4) of the Convention and the definition has widened by including any objects lost at sea and drifting at sea i.e. lost containers, cargo and “*a ship that is about, or may reasonably be expected, to sink or to strand, where effective measures to assist the ship or any property in danger are not already being taken*”. This Convention gives more liberty to States to recover damages from everything that is emanating from the ship.

The Convention empowers owners to remove the wreck, prior to such removal. States may prescribe circumstances for such removal only to the extent required to ascertain removal is being done safely and preventive measures are being taken for protection of marine environment. The next sub chapter will be discussed in brief about civil liability conventions with notion of salvage.

### **3.5 Civil Liability Conventions**

The disaster of the super tanker *Torrey Canyon* on the coast of the United Kingdom [UK] on 18 March 1967 resulted in crude oil spill of 119,000 metric tons (ITOPF, 2019). This was the world's most serious oil spill of that time caused tremendous destruction to the marine environment and coastline on and around the UK coast.

Post incident, there was an urgent need felt to address the shortcomings of a disaster such as missing civil liability of owners for persons who suffer damage because of oil pollution and legal rights of a coastal State for intervention on the high seas to develop new laws. In 1969, IMO adopted a Convention on “private law”, namely the International Convention on Civil Liability for Oil Pollution damage, 1969” [CLC 69], the HNS Convention 1996, the Bunker Convention 2001 and each liability convention provides channelling provisions for salvors to claim compensation for the steps taken to prevent and minimize such damage except for the Bunker Convention (Mandaraka-sheppard, 2013). Article II of the CLC Convention stipulates that “*this Convention shall apply exclusively to pollution damage caused on the territory including the territorial sea of a contracting State and to preventive measures taken to prevent and minimize such damage*”. The salvors are the first person to respond to any pollution damage for taking precautionary steps to minimize pollution to the marine environment, and such persons can be appointed by the master

of the vessel, owners or coastal States depending on a case basis. Even if salvors have not received the full amount due from owners, under CLC and the FUND Conventions such amount shall be recoverable (Berlingieri, 2015). The law of the State obligation governs the responsibility of States under international law. The foundation of State responsibility rests in the non-fulfilment of the obligation assumed by State or imposed by International law (Birnie et al., 2018). However, coastal States have the power of intervention, which may be exercised during salvage operations. Their intervention may have the effect of extending a salvage operation for a salvage operation which is otherwise deemed to have ended under LOF 2011 cl. H will not be so deemed “if salvors must remain in attendance on a casualty to fulfil the requirements of any ports or harbour authority, government authority or similar authority”(Rose & Kennedy, 2017). The next sub chapter will briefly discuss on conventions affecting salvage.

### **3.6 Other Conventions affecting Salvage**

An international regulatory framework is of paramount importance in the protection of the marine environment and divided under ship source pollution and shore-based pollution. The longest traditions in the conventional regulations of marine pollution relate to vessel - source oil and the regulatory measures taken since the conclusion of the 1954 Convention evince growing determination among states to decrease to a minimum, and even to eliminate, operational vessel source pollution (Kari, 1981) through the OPRC, the London Dumping Convention and the Basel Convention. The ship sourced pollution is covered under MARPOL 1973/78, the Intervention Convention, the Anti Fouling Convention and the HNS Convention. These Conventions provide regulatory legal framework for the protection of the marine environment by discharge of dangerous substances in contravention of the Conventions (Berlingieri, 2015). Control on shore-based pollution is not being discussed due to dissertation limitation although this contributes in damage to the marine environment. The next chapter will discuss about Indian legal infrastructure to deal with salvage interventions.

## 4. Overview of national legal framework

The Indian laws are based on common law system and the maritime laws are developed at the time of pre-Independence era, and until now, no such major review of national laws have been carried out. This chapter will be reviewing the relevant national provisions regarding the protection of the marine environment with special impetus on salvage and wreck laws. As highlighted under “port led development” programme under Sagar mala project of GoI, there are many ports coming up and new single point mooring [SPM] births have been developed to handle more VLCC in national waters (GoI, 2016). This subchapter will be more focussed on the relevant laws applicable for this paper such as MSA and Admiralty Act, national contingency plans, Green tribunal and High Courts.

### 4.1 Merchant Shipping Act 1958 and Merchant Shipping Rules

India being a common law country, common law rules apply. The parliament passed MSA in 1958 and became a maritime law for all marine related issues. The primary objectives of *MSA is to foster the development and ensure the efficient maintenance of an Indian mercantile marine in a manner best suited to serve the national interest* (DGS, 1958). To achieve its objectives, the MSA provides all legal procedures pertaining to the mercantile marine in Indian waters applicable to Indian and foreign vessels. This act has been divided into XVIII parts containing articles from 1 to 461.

India being a party to the International Salvage Convention, 1989 [ISC] and the International Convention on Wreck Removal, 2007 [ICWR] (IMO, 2019), the relevant rule provisions are incorporated into national laws and are covered under Part XIII from article 390 to 404 of MSA. These laws are pristine with limited relevance to today's scenarios.

Table 1: List of applicable MSA provisions for pollution prevention and salvage laws in India

Sr. No	Part number	Article Number	Name
1	X	345-351	Collisions, accidents at sea and liabilities
2	XA	352-352FA	Limitation of liability
3	XB	352G-352R	Civil liability for oil pollution damage
4	XC	352S-352ZA	International oil pollution compensation fund
5	XIA	356A-356I	Prevention and containment of pollution of the sea by oil
7	XIA	356J -356O	Provisions for containment of accidental pollution
8	XIB	356P -356Y	Control of harmful anti-fouling systems of ships
9	XII	357-389	Investigations and inquiries
10	XIII	390-404	Wreck and salvage wreck

(Source: Indian Merchant Shipping Act, 1958 downloaded on 31.07.2019 from DG Shipping)

The definition of salvage is defined under article 3(40) as “*Salvage includes all expenses properly incurred by the salvor in the performance of salvage services*” and the explanation of salvage services are provided under article 402 (1) as services rendered;

- a. “*wholly or in part within the territorial waters of India in saving life from any vessel, or elsewhere in saving life from a vessel registered in India; or*
- b. *in assisting a vessel or saving the cargo or equipment of a vessel which is wrecked, stranded or in distress at any place on or near the coasts of India; or*
- c. *by any person other than the receiver of wreck in saving any wreck.*”

Further, the definition of salvor and salvage operations being defined under article 352(H) as “*Salvor means any person rendering services in direct connection with salvage operations, and salvage operations includes;*

1. *the raising, removal, destruction or the rendering a ship harmless which is sunk, wrecked, stranded or abandoned including anything that is or has been on board such ship;*
2. *the removal, destruction or rendering the cargo of a ship harmless; and*
3. *the measures taken to avert or minimise loss to a ship or its cargo or both.”*

The detailed explanations of the wreck and salvage law is being provided under Merchant Shipping Rules [MSR]; however, these rules are quite dotard and have limited relevance to current scenarios at sea; likewise, the skills and efforts of the salvors in preventing or minimizing to the environment are not incorporated. The importance of the preservation of the marine environment through salvors including special compensation has not been given enough publicity through these rules. The salvage rules do not provide enough obligation on the rights of a coastal State for the prevention of marine pollution; however, the relevant rule provisions are contained under Article 356 (J, K, L) of the MSA, which permit coastal States to detain and arrest vessel or direct their owners to take immediate action or deploy salvors in case of a vessel involved in a marine casualty on or near the coast of India.

Table 2: List of applicable Merchant Shipping Rules for prevention of pollution and salvage

Sr. No.	Name of Merchant shipping Rules
1	Merchant Shipping (Control of Anti-fouling System) Rules, 2016
2	Merchant Shipping (Limitation of Liability for Maritime Claims) Rules, 2015.
3	Merchant Shipping (Limitation of Liability for Maritime Claims) Rule. 2017
4	Merchant Shipping (Prevention of Collisions at Sea) Amendment Regulations, 1990
5	Merchant Shipping (Wrecks and Salvage) Amendment Rules, 1975
6	Appointment of a receiver of wrecks under Section 391 of the MS Act, 1958, published in the Gazette of India vide S.O. 112 (E) dated 07.01.13 published on 16.01.14.
7	Merchant Shipping (Prevention of Pollution by Oil from Ships) Rules, 2010

8	Framing of Merchant Shipping (control of Pollution by Noxious Liquid Substance in Bulk) Rules, 2010. (MARPOL -Annex II)
9	Framing of Merchant Shipping (Prevention of Pollution by Harmful Substances carried by Sea in Packaged Form) Rules, 2010. (Annex-III)
10	Framing of Merchant Shipping (Prevention of Pollution by Sewage from Ships) Rules, 2010. (Annex-IV)
11	Framing of Merchant Shipping (Prevention of Pollution by Garbage from Ships) Rules, 2010. (Annex-V)

(Source: Indian Merchant Shipping Act, 1958 downloaded from DG Shipping)

#### 4.2 Provisions for Rendering assistance at sea

Under the national laws of India, the duty to render assistance to ships in distress was provided in Table 3 as enumerated below.

Table 3: List of provisions under national law for rendering assistance to vessels

Sr. No	MS Act Articles	Details of articles
1	348	Duty of a master of a ship to assist in case of a collision
2	355	Obligation to render assistance on receiving a signal of distress
3	355A	Obligation to render assistance to persons in danger
4	356K	Powers to take measures for preventive or containing [oil or noxious liquid substance] pollution
5	356L	Powers of the Central Government to give directions to certain ships to render certain services.

Source: MS Act, 1958 as amended.

Articles 348, 355 & 355A of MSA provide mandatory obligations on the Captain of a vessel to render assistance to save life at sea on humanitarian grounds, whatever the circumstances, i.e. collision, receipt of a distress message or to a person found at sea in danger of being lost. Article 356L of MSA empowers the central government to give directions to certain ships to render certain services on economic grounds to save the ship and her cargo. The water Act, 1974 is applicable for all kind pollution of water and discussed in brief below.

#### **4.3 The water (Prevention and Control of Pollution) Act, 1974**

The Water (Prevention and Control of Pollution) Act was implemented in 1974 for taking measures for the prevention and control of water pollution, and for maintaining the wholesomeness of the water in the country. The WPCPA was amended in 1988. The WPCPA Cess Act was implemented in 1977, for providing levy and collection of a cess on water utilized by persons operating and carrying on certain types of industrial activities. The WPCPA was lastly updated in 2003 (CPCB, 1974). The important contingency plan to combat oil pollution in Indian waters is discussed below.

#### **4.4 National Oil Spill - Disaster Contingency Plan for Maritime Zones**

The maritime boundaries are defined under The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zone Act, 1976.

India is the largest crude oil importer among the IOPC member States since 2016 onwards (IOPC, 2019). All major ports in India receive around 7000 oil tankers every year, over 80 offshore drilling companies are working in Indian EEZ for exploration and exploitation activities of oil. A substantial number of oil activities in and around the Indian peninsula create a major threat of oil spills. To deal with such oil pollution incidents the National Oil Spill - Disaster Contingency Plan [NOS DCP] was developed with the primary purpose of responding in emergency situations at sea on or near the coast of India involving direct or indirect release of oil pollutants from ships or oil platforms. The plan incorporated the role and responsibilities of several departments and ministries of the government of India for achieving the objectives of oil spill response. However, the new



plan has been modified to include emergency preparedness and response provisions for responding to pollution emanating from noxious liquid substances on or near the Indian Coast. The core aim of the plan was to facilitate speedy and effective response to oil pollution and the plan has been divided into three layers.

Tier 1 - Small oil spills up to the size of 700 tons and can be handled within the capacity of the port concerned.

Tier 2 - Oil spills larger than tier 1 and require mobilization of equipment and resources from over one place.

Tier 3 - Oil spills of major size requiring mobilisation of oil spill equipment from national resources and depending on circumstances may be required to mobilize resources and equipment from regional or international level.

The Indian national contingency plan [NOSDCP] was developed and maintained to handle oil spills based on oil spills of 10,000 metric tons, which is insignificant as compared to actual oil being imported in India; moreover, 70% of the global oil is transported through the Indian EEZ (ICG, 2015). The most pollution cases end in courts to fix the polluters and pay the compensations to affected people and organisations. The next sub chapter will be highlighted about dispute resolution mechanism available in India.

#### **4.5 Dispute resolution mechanisms for marine environment and salvage**

The Indian legal institutions are designed under the British rule and since then High Courts in India are dealing with maritime disputes. However, with the advancement, the workload on the High Courts increased exponentially. Currently, India is having three legal institutions to deal with maritime dispute related cases, i.e. Courts, Arbitrations and National Green Tribunal, which is discussed below.

##### **4.5.1 Arbitration**

Lloyds Arbitration & London Maritime Association of Arbitrations [LMAA] in the English law are governed by the UK Arbitration Act of 1996 [UKAA] (Government of, 1996) the primary aim of the arbitration is to provide quick and cheaper dispute resolution means as compared to the

courts (Lloyds Arbitration Branch, 2019). All disputes related to maritime salvage contracts signed under Lloyd's open form [LOF] with or without SCOPIC invoked are presented before the council of Lloyds in London for resolution under English law. However, in some countries under salvage arbitration law the Lloyds open form [LOF] arbitration provisions are not enforceable in domestic salvage cases, "Brier v. NorthStar Mariner, Inc., 1993 AMC 1194 (D.N.J.1992)" (Salvage arbitration.1993). In India, all arbitration cases are dealt with by the Arbitration & Conciliation Act, 1996 (IIAM, 1996).

#### **4.5.2 National green tribunal**

In 2010, the Government of India [GoI] established the National Green Tribunal [NGT] for the expeditious and effective hearing of cases pertaining to environment protection and preservation of jungles and original resources including implementation of legal rights of the environment and providing compensation and comfort for losses to populations and property and for concerns agglutinated therewithal or incidental thereto (GoI, 2010). In the judicial pronouncement in India, the healthy environment rights have been accepted as an undivided part of life under Article 21 of the Constitution of India. All proceedings at NGT shall be pondered as the judicial proceedings as per section 193,219 and 228 for section 196 of the Indian Penal Code [IPC] and the tribunal shall be perceived to be a civil court for section 195 of the Code of criminal procedure, 1973.

#### **4.5.3 High courts of India**

The High Courts of India are empowered by the Admiralty (Jurisdiction and settlement of maritime claims) Act, 2017 to deal with all kinds of maritime claims enlisted under Article 4(1) of the Act. This provision of this Act applies to all vessels excluding war ships and non-commercial vessels of the government regardless of residence or domicile of the shipowner. All disputes related to salvage such as salvage services, special compensation belong to salvage of a vessel which threatens damage to the environment by itself or its cargo will be heard in the respective High Court of India (DGS, 2017).

The next chapter discusses about analysis of the factual cases and discussion will be focussed on marine pollution, slow response from stakeholders, statistics of incidents in Indian waters and role of insurance and contracts.

## **5. Analysis of the factual cases**

This chapter will be focussed on analysis of the factual cases and statistics in Indian waters. The two main cases related to marine environment and practical problems of salvage have been discussed.

### **5.1 Accident on the Indian coast involving oil tanker casualties**

#### **5.1.1 Overview of statistics**

There are several incidents happening around the world including Indian waters. The accidents figure in Indian waters are depicted in Figure 5 from 2011 to 2018. Most accidents indicate the following: occupational health, grounding, fire and collision. Also, oil pollution cases have increased from zero in 2016 to 6 in 2018. Tankers are more susceptible to mechanical failure and breakdown as the first event of a string leading to more serious casualties. Many oil ports lie in remote but in environmentally sensitive areas. The need for responding to breakdowns, and controlling them before they become more serious, has led to requirements for escort tugs and special towing packages in many oil ports (Milwee, 1995). What is the impact of such a large number of accidents on the national legislative system? Is there enough maritime legal infrastructure available to adjudicate the cases? The primary legal authority is enumerated under MSA with penalty provisions which are irrelevant to the current era. These legal provisions were developed at the time of British era with fewer amendments until now. However, the new Merchant Shipping Bill [MSB] is pending in Parliament, which is the first complete revision of the MS Act, 1958.

## Accident statistics in national waters

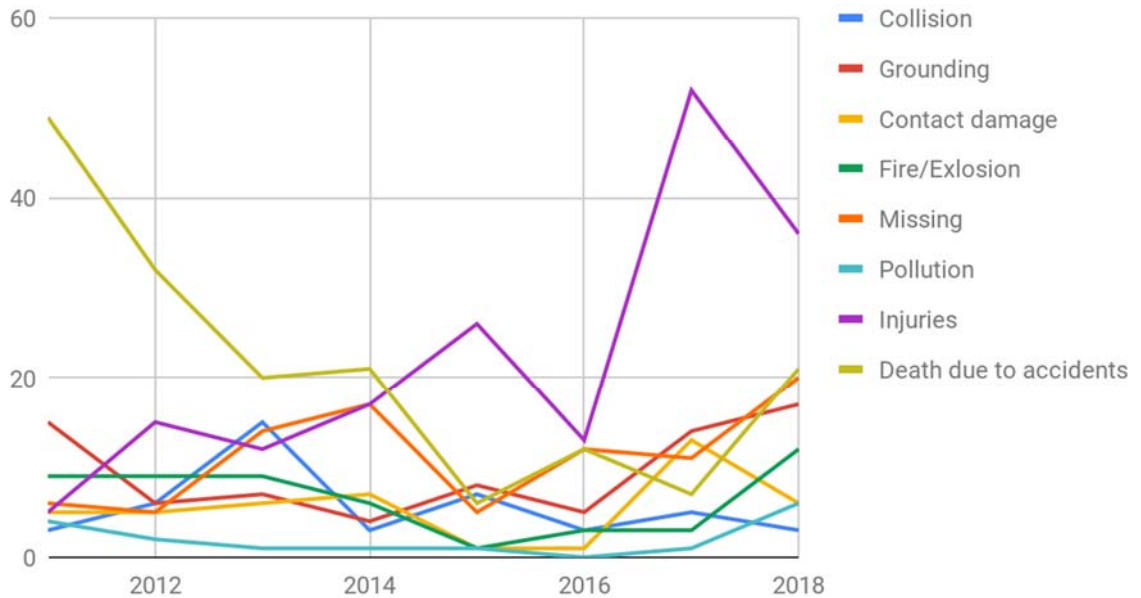


Figure 5: Marine accidents in national waters

(Source: DG Shipping, report on shipping casualties 2014,2015 & 2016 page 94)

### 5.1.2 Marine pollution

Figure 6 shows the casualty trend of collision, grounding, fire and pollution has been reviewed. The major concern in all casualties in Figure 6 could have been a marine pollution where outside assistance or activation of national disaster contingency plan may be required to take effective and preventive measures and where the role and involvement of a professional salvor starts. Another incident of *MSC Chitra* in 2010 off Mumbai was the real test for the authorities to implement a national contingency plan to stop the spreading of oil into adjacent areas and use of salvors in national waters. Further, the least number of accidents was recorded in 2016 and the maximum numbers in 2018 in the last 8 years of study on the Indian coast.

## Accidents statistics of collision,grounding, collision and pollution

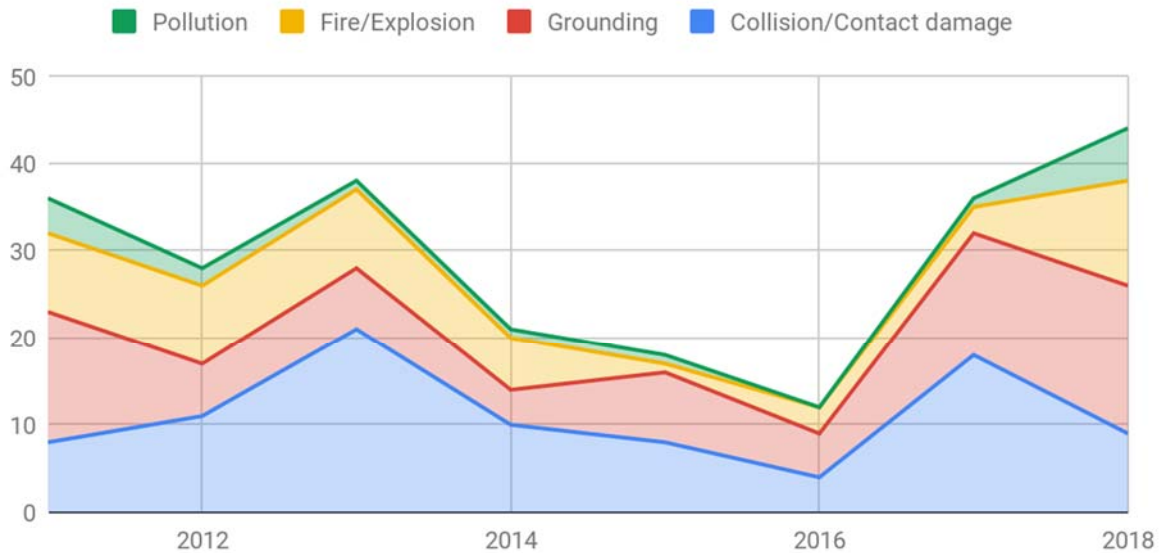


Figure 6: Accidents analysis of collision, grounding, collision and pollution

(Source: DG Shipping, report on shipping casualties 2014,2015 & 2016 page 94)

Where a laden tanker intimidates damage to a shoreline because of spillage or imminent spillage of part or all of the cargo, the salvors on the spot and shipboard personnel on board ship will in reality not only be preserving the tanker and her cargo but will also be concerned with the threat to the coastline. Government organisations such as the Coast Guard, Navy, maritime administrations and local port authorities learning about the casualty would-be put-on alert depending upon the seriousness of the threat. Parties' response may vary from case basis and also, media attention to oil spill casualties may pressurise the politicians and administrators to take action or pressurise those responsible for taking action to avoid damage to the coastline. Salvors and shipboard crew on board may desire to take the vessel into sheltered waters whereas the local authorities or coastal authorities may consider taking the vessel as far away as possible from the coast to minimize the damage to their coastline. Further, the salvors are concerned with bringing

the damaged vessel into port; on the other hand, they want to avoid the prospect of sanctions payable in the form of penal measures because of their default (Brice & Reeder, 2011).

## **5.2 MSC Chitra and Khalijia 3 case**

### **5.2.1 Overview of case**

After the collision between *MSC Chitra* and *Khalijia 3* on 3rd August 2010 at Mumbai, JNPT entrance channel was closed for operation for 5 days. Over 800 tons of bunker oil leaked and spread around Mumbai and JNPT Port coastal area. M/s SMIT as salvors were nominated to rescue offloaded containers and bunker oil into the sea. The port and coast guard response operation along with the salvors and other local bodies were involved in combating the clean-up operation.

### **5.2.2 Salvors Vs. Protection of Marine pollution**

The Preliminary Investigation [PI] report of DG Shipping states that the flow of information and coordination will be further strengthened between ports and DG Shipping (NSB, 2010). The important thing to note is that Indian crude demands are soaring up exponentially and growing at a faster pace with annual crude oil imports doubled in the last decade as shown in Figure 7 (OPEC, 2019). Future challenges may be the preparedness to handle prevention and control of marine pollution generated from a large oil tanker within the context of the national contingency plan [NOS-DCP], which is primarily developed and maintained to handle oil spills up to 10,000 tons. Is India prepared to deal with oil pollution incidents of even one super tanker anywhere around the coast? Probably the answer is a big no although the NOSDCP provides for regional coordination and engagement of expert services of private contracted parties for larger oil spills. When you need an expert service from third parties which does not even maintain equipment on the coast, will be too late to provide emergency response. The spill will spread over a large area subject to prevailing weather, currents, swells, waves and tidal variations and location of a spill prior to commencement of emergency services. Also, the bigger questions are: Did anyone know what kind of effective and quick response they will provide? More important is how often is the equipment tested through regular realistic drills on the high seas to verify their effectiveness and response to dealt oil spills?

Who is verifying their support equipment including support craft or are these parties depending on other parties to provide support crafts whether they are fit to deliver the effective services or just a contract on paper, so what is their qualification? The more ludicrous thing is that there is no control of the central government over third parties providing oil spill ancillary equipment and their manpower.

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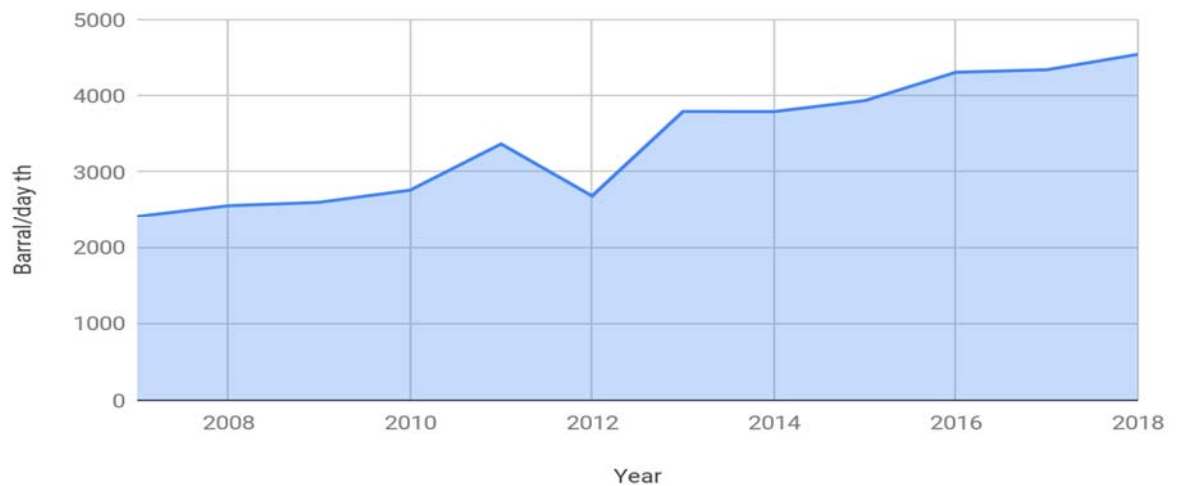


Figure 7: Indian crude oil imports for the last decade, i.e. from 2007 to 2018.

(Source: OPEC: Crude Oil Imports: Asia and Pacific: India ([www.ceicdata.com/](http://www.ceicdata.com/) Organisation of the Petroleum Countries))

The author is of the view the engagement of salvors or third parties in national waters should be intervened by coastal States for all marine environment related issues. This is the fundamental right of a coastal State under international laws. The main problems lie in the model of ecological damage, which is multidimensional depending on the meaning, so the burden lies on the persons liable for the pollution, which can vary (Nicholson, 1990). Therefore, the coastal States must develop a definitive meaning of probable, imminent and actual damages being caused by the polluters. Article 356K & 356L MSA provide legal liabilities for marine environment protection. However, the question is whether the national laws are robust enough to address these legal issues. The 1910 Convention on salvage does not provide any obligation on the salvors to protect the marine environment and there was no remuneration for protecting the marine environment.

Nevertheless, the 1989 salvage Convention provides mandatory obligation on salvors to prevent marine environment. Salvors may claim remuneration under ISC 1989 for the measures taken to save the marine environment even if there is no salvaged property.

### **5.3 Nu Shi Nalini case**

#### **5.3.1 Overview of case**

With the *Nu Shi Nalini*, ship masters/owners have been notified about the incident to Port, MRCC, P & I Club, H & M Insurance, Class and Maritime Administration. The LOF 2011 agreement was made between owners and salvors with SCOPIC incorporated and invoked. The salvors carried out an initial assessment, appraised Cochin Port and the situation of the vessel with proposed plans for salvage operations. Salvors mobilized the special salvage equipment for handling petroleum cargos a few days later. The stability of the vessel was verified by RO and was in order.

Salvors discussed their salvage plan to unload cargo at an anchorage with port authorities but did not materialize because of prevailing hostile weather. The Cochin Port authorities took longer to turn down permission to provide a place of refuge or sheltered waters to the stricken vessel for undertaking salvage operations. Meanwhile salvors tried other nearby ports but failed except getting permission from Trincomalee on the East coast of Sri Lanka after a lapse of a good number of days. The P & I club was provided initial SCOPIC security of 3 million dollars to salvors, and later when there was substantial delays, the club advised owners to end the SCOPIC subject to the owner's satisfaction with the services of the salvors and move from LOF to a more reasonable care, taking a contract with fewer people involved. However, the owners desired to continue with SCOPIC. On receipt of information from Trincomalee Port, the salvors asked the owners to top up additional SCOPIC security of 2.5 million dollars to continue the proposed operations at Trincomalee, which the P & I club refused and advised the owners to arrange top up security through H & M underwriters as a salvage operation falls within the ambit of H & M underwriters.



Meanwhile, the owners and the salvors requested to tow the vessel to Trincomalee, which was turned down by the local maritime administration citing safety reasons. Later permission was accorded by the headquarters of the Indian Maritime Administration.

The P & I club was continuing to insist that the owners end the SCOPIC, but the owners desired to remain SCOPIC invoked till the operation was over.

The salvors prepared the vessel to be towed subject to additional SCOPIC security of 2.5 million dollars prior to commencement of towing to the next port. The owners requested the club to top up additional SCOPIC security but the club denied. H & M insisted that SCOPIC security to be topped up by the club only. The shipowner could not arrange SCOPIC security and the salvors ended the salvage contract and operation ceased. The dispute escalated between all parties such as owners, clubs, marine insurance and salvors which continued for a longer duration. The incident highlighted the problems with providing a place of refuge to stricken ships and provisioning salvage liabilities to protect the marine environment as discussed under chapter 4. The other discussions are as follows;

### **5.3.2 Salvor's negligence**

There are many examples available in international salvage case law regarding salvors who caused damage to the property of salvee's gaining monetary benefits. These include theft, fraud, loot, hype of maritime peril, imposing aid, and other examples of similar situations have led courts and tribunals to giving awards in favour of salvee's. Salvors are liable for the full amount of damage earning no salvage award and sometimes followed by criminal charges (Mudric, 2014; Schoenbaum, 2018). The salvors on occasions were observed to be utilizing the salvee's emergency to enhance the award by unreasonably prolonging the duration of salvage activities, waiting for maritime perils to deteriorate further for the right bump and selecting an ulterior port of delivery (Mudric, 2014). In a parallel circumstance, the *Nu Shi Nalini* permission was denied by ports on the WCI but got permission from the port of Trincomalee NE of Sri Lanka. This means the vessel had to be towed for a longer duration wherein salvors can earn a huge amount of money. The stability of the vessel was verified by the RO and was within the acceptable limits with no external hull damage. The question is whether the salvors had influenced the WCI ports not to

allow the disabled vessel in their ports to gain maximum monetary benefits by taking a vessel to Trincomalee via south of Sri Lanka for towing over 600 nautical miles. The answer to this question requires substantial research and to be proved by shipowners under the Admiralty (settlement of maritime disputes) Act by courts. The on-board situation of *Nu Shi Nalini* was far better than *Erika* and *Castor* as discussed earlier. This vessel was not damaged externally, as the RO verified and approved stability. In the author's view the vessel could have been provided shelter waters to carry out cargo operations and further repairs.

### **5.2.3 Contracts and Insurance**

The P & I club refused owners request to top up SCOPIC security and advised reverting normal towage contract with H&M insurance. The question is: Can the P & I Club refuse owners' request for topping up of SCOPIC security after entering contract for LOF with SCOPIC invoked? To answer this, it is important to understand that SCOPIC is a substitute of the special compensation mechanism under Article 14 of the ISC, which is the subject of a private law. The SCOPIC guarantee is an owner's liability for damage to the marine environment which is to be provided by the Club. If looking at the funding agreement 1980 and 1990 between IGP&I, the Institute of London underwriters and Lloyd's underwriters which states as follows; it is agreed that P & I club will provide security for, and will indemnify the shipowner against any award of special compensations under Article 14 of the salvage Convention and Underwriters will accept the salvage award made under Article 13 of the salvage Convention are recoverable from them by ship, cargo and freight interests under the forms of policy (De la Rue & Anderson, 2009).

In addition, the judgement of the House of Lords on *Nagasaki Spirit* held owners liable to pay special compensation under LOF to salvors (The *Nagasaki Spirit*, 1997; Xu, 2000). Further, the club rule covers shipowner's liability for complying officials' orders for the Protection of the Marine Environment (Anderson & De la Rue, 2011; De La Rue, 1993; UK P&I Club, 2019). The club rule book 2019 provides detailed provisions to cover shipowners' liabilities under salvage and special compensations to salvors under SCOPIC. Further, to substantiate this it is also required whether the coastal State has issued official orders to owners or otherwise for taking preventive

measures. Even if official order is not issued, the liability may vary from one club to others subject to their rule provisions incorporated in an insurance policy (ISU & Lloyd's, 2005). The next question is whether the funding agreement 1980 and 1990 between IG P&I and H&M underwriters apply for Non-IG groups members. Another discussion is up to what extent is the salvor liable under national laws to provide salvage services on orders from coastal States? Based on literature review within the perspective of MSA, the salvor is liable for negligent action to prevent and salvage property to owners; provisions are available to take right of recourse under Admiralty (Jurisdiction and settlement of claims) Act, 2017.

#### **5.3.4 Salvor's liability**

The salvor liability comes into the picture when a salvor does not provide the services with due care and professionalism. The liability of shipowners toward the right of recourse against third parties such as salvors is enumerated under article 352I (6) of MS Act. There are plenty of examples around the globe where salvors' negligent action denied salvage award and are liable to pay damages to salvees. To exemplify this the English case of *Tojo Maru*, the French case of *Germain*, the American cases of *Noah's Ark* and *Kentwood* and the German case of *River Elbe* have been known as the "doctrine of affirmative damages" according to that any professional salvors can be held liable for damage for negligent execution during salvage operations, even if such liability exceeds the ISC threshold limits (Mudric, 2014).

The key essence of the salvors' liability is when distinguishable damage is caused by the salvor, and the damage differs from the original damage threatened by the maritime peril. Where damage caused by salvors' wrong action is the same damage expected under the maritime peril, then such damage is called non distinguishable damage, a pursuance to which a salvor may be held liable in cases of gross wilful or gross negligence. The United States *Noah's Ark* case differentiates between visible and non-visible damages caused by salvors, another US case on *Kentwood v. United States* highlights one step ahead in the assessment of salvors' liability, contrary to "*Noah's Ark* case, judge Clark stated that professional salvors may be held liable for non-visible affirmative damage that render services without the right tools and skills in a non - peril environment regardless of the

amount of negligence observed (Clark, 1997). Pursuance to such determination, professional salvors are required to observe a high standard of care and responsibility and liable for damage even with no major negligence, intentional misconduct or visible injuries. A simple negligence resulting in a violation of a contract is enough to grant salvee's a chance to claim damage from professional salvage (The MV Toledo, 1995; The Tug Neptune, 1998). With *Nu Si Nalini* the question is whether the professional salvors were equipped with all required equipment and experience at the time of signing the contract for salvage services or whether the professional salvor delayed the process to mobilize equipment.

With the grounding of the vessel *Serine* in the Adriatic Sea in January 2008, the port authority deployed a salvage tug to assist the vessel to prevent a likely threat to the marine environment. The salvage company took a number of activities outside the ship ranging from deployment of oil booms to safety nets outside the ship to collect and stop spreading of the oil. Nevertheless, the salvors had taken no action on board ship to stop water ingress which damaged the machinery in the engine room and cargo in the holds. However, oil never escaped from the vessel but seawater damaged the machinery and cargo on board. Although the salvor put up a claim for special compensation for the services rendered for protecting the marine environment, the salvee's counterclaimed damages. The salvors contended that services asked by the port authority were the primary concern to protect the marine environment as mandatory obligation under ISC 1989, and could not have performed any task to preserve ship and cargo. The salvee's claimed that the salvor did not observe due care to preserve the ship and property. The matter was resolved, but the main question is whether the obligations of a salvor towards protection of the marine environment is overriding the duties of saving property and cargo. It is important to understand when salvors proceed to render assistance to a damaged ship with leaking oil, the priority of the salvors is to arrest the leakage or source of pollution to further provide salvage services (Mudric, 2013). Also, with the grounding of the vessel *Serine* and subsequent court orders the understanding of the issue is clearer, but there is a lack of literature on the topic and more research may be required.

## 6. Conclusion and Recommendations

### 6.1 Conclusion

The aim of this paper was to research the reasons for legal jarring pertaining to salvage services on the tanker *Nu Shi Nalini* and Oil spill after collision of *MSC Chitra* and *Khalijia 3* between shipowners, salvors and H & M underwriters. In particular, this paper focussed on the relevant literature in salvage and marine environment including case laws. The desired outcomes of the main research question on refusing port entry to WCI ports was probably because of lack of legal procedural law infrastructure within ports and Central Government regarding development and implementation of a uniform place of refuge guidelines for all Indian ports. Also, this answer was supported by lack of authoritative law under MSA regarding empowering a Nautical Advisor to act as a Government representative [GOVREP] in all cases of emergency in Indian waters [i.e. salvage, wreck, fire, grounding, sinking, pollution, etc.] on board vessels. GOVREP may be empowered with overriding authority to deliver immediate and effective advice to ships and ports to cooperate with stricken ships or may require ordering the port to accept the stricken vessel in larger public interest to safeguard the coastal waters and marine resources. The decisions in emergency situations will be to effectively coordinate between all the Government agencies and rely on their professional experience, judgement and ship handling experience. Further, this answer was supported by the case laws that some of the professional salvors impress upon ports by projecting hypothetical situations of ships to nearby ports so that salvors will have an opportunity to take the vessel to a long-distance port to make more benefits.

The impact of this answer will encourage coastal States to establish and implement clear obligatory laws in ports and central governments. In addition, in future such delays will be reduced, minimized, economic losses to ship owners will be curtailed and damage to the coast and marine resources will be minimized.

Another important research question was Can P&I Clubs refuse owners request for SCOPIC top up security in national waters? The clear answer is “no” except in cases with non-IG Group members. This answer was supported by the most famous English Admiralty “House of Lords” case law of the tanker *Nagasaki Spirit* under which the judge stated that the P & I Club once enter an agreement to pay, SCOPIC should continue to pay till salvage services are over or abandoned by the salvors. Further supported under subchapter 2.1.1. The shipowners have the provisions under Indian Admiralty (Jurisdiction and settlement of maritime claims) Act, 2017 to settle the maritime disputes with Clubs in the High Courts concerned. The future impact of this will ensure that clubs will cooperate more and no repetition of similar cases will surface again, and it will also act as a deterrent to Clubs.

Further this paper also tried to conclude the best legal system available around the world to prevent marine environment issues in national waters i.e. the US, the UK, Australia and China.

All four countries had their own approved salvors to perform the duties of prevention and control into national waters. In the author's opinion, India should adopt the laws with stringent and criminal provisions for qualified persons or agency responsible for saving life, property and the marine environment and develop system of regulating salvors on Indian coast. These service providers may be under the direct control of maritime administration for effective implementation. Australia, and the UK are using the services of approved ETV vessels under direct control of the government. The US and China are having the services of qualified individuals [QI] and approved pollution prevention agreements with local agencies under the supervision of China MSA. The major impact of a good system in national waters will prevent damage to the marine environment.

Another research question was the development of laws for use of the latest technology in a salvage operation. The author has tried to resolve it through literature on the subject and it was concluded that the salvage industry is investing in innovative technologies and equipment supported by the review of literature but the technology is moving faster than the development of the laws. The impact of this innovative technology will cause economic benefits to render assistance to mega containers and other ships. Also, the use of technology for economic benefits should be promoted and encouraged for regular assessment and monitoring of the situation on board vessels in

coastal waters to reduce the high cost of daily boat/tugs and manpower hire rate to visit and assess the situation. It will help salvors and shipowners to make faster and quicker decisions and will reduce the time for port formalities of approving boats or support craft to visit for the purpose of assessing external and on-board situations.

This paper also concluded that the existing Salvage Convention framework is almost 4 decades old and the time has come for charting a new course for the salvage laws. This research highlights the new area, which is required to be incorporated in new salvage Conventional laws. It highlights the new recommendation in the subparagraphs below. The author has tried all available means to research the issues highlighted in Chapter 1 of this research paper and was able to cover the issues of (1) latency, (2) insurance, (3) places of refuge, (4) new technology. However, due to paucity of time and limitation of dissertation length some areas had to be shortened and left out. The scope for future discussions and research are as follows:

- a. Can P & I club withdraw from SCOPIC liability without the fault of the owners?
- b. What are the challenges and dangers of bureaucratization of maritime affairs?
- c. Are insurers able to recover the cost of the damaged ship due to negligent action on the coastal States' part?
- d. Is the funding agreement 1990 between IG P&I and Hull underwriters is applicable for non-IG members and Hull underwriters?

## **6.2 Recommendations**

The legal recommendations emanating from the paper has been divided into groups of salvors and unions, ship owners, national governments and insurance companies including P & I Clubs. These recommendations are having follows;

### **6.2.1 Salvors and Unions**

In today's era, salvage operations are difficult compared to traditional salvage because of technological changes that happened during the past century, as well as industry ambition to build larger vessels i.e. VLCC's, VLGC, VLOC, E & G class mega containers and MASS vessels,

without taking the salvage industry on board during the design stage. It is recommended that salvors should be involved in all new technology developments at all levels of negotiations in international forums from the initial stage to the operating stage, including legal issues and limitations of the new technologies where salvors can play a bigger role in saving and preserving the property and ship including the marine environment.

Current salvage equipment available with salvors is not enough to handle even a single large crude oil tanker accident to prevent or minimize prevention of pollution besides mega container ships including G - class container vessels, with a cargo carrying capacity of over 21,000 TEUs.

It is also recommended that salvors or their unions should do more research and development work to ensure that new designs and larger vessels are handled to save property and cargo. Also, salvors need to upgrade themselves to counteract 21st century growing challenges to remain relevant in the “Technology driven shipping industry”.

### **6.2.2 Ship owners**

The ship owners are placing new orders of bigger ships to gain more economic benefits and new ships are a combination of man and machinery fitted with the latest technology. Ship owners need to be concerned about the limitation of technology with the availability of ill equipped salvors to handle mega ships. It is recommended that ship owners should consider the perils at sea and salvage legal requirements over and above the SOLAS standards at the design stage itself, which may be required at any place and time with no warning to preserve ships and cargo, so that ships do not succumb to perils of the sea.

Further, it is recommended that new designs should be developed and made mandatory through IMO to extract oil from cargo and bunker tanks of a vessel by the salvors when a vessel is a floating in dangerous situations or even after sinking.

### **6.2.3 National Governments**

Since India being the largest oil importer among the IOPC members, it may consider implementing a uniform national system of combating oil spills and designation of permanent



salvage service providers in national waters under the direct control of maritime administration. It may also be considered nominating GOVREP with necessary overriding legislative powers to take quick and effective actions as desired by the type of perils to prevent and control marine pollution in national waters. The extant laws are utmost required to be revised to include new legislation related to salvage and wreck. The government should also reconsider that IMO guidelines on “places of refuge” and “ship is an emergency”, including ISC provisions to be brought into national legislation to make stringent and robust national maritime legislation. In addition, the maritime traffic is increasing on the Indian coast and a large number of accidents are happening and require salvage services, which should be regulated by national legislation. Currently, all salvage activities under LOF are governed by English law. It is recommended that the Indian salvage agreement form should be devised and made available to all stakeholders to use in Indian waters. Further, the national contingency plan should be equipped to handle oil spills of at least equivalent to the volume of three VLCC’s and equipment must be placed strategically in the Gulf of Kachchh, Kochi and Visakhapatnam to cover the entire coast of India. The Gulf of Kachchh is being the Indian energy Gulf government may consider declaring as “Indian special area” for the purpose of MARPOL 73/78. The DG Shipping is a central legislative and enactment body for all oil spills along the Indian coast may be nominated the central agency for maintaining NOS-DCP with the support of the coast guard and Indian Navy.

Further, the recommendations may be brought up to IMO level, so that the international regulatory body may look into the revision of the Salvage Convention. There are three important recommendations for IMO.

Firstly, IMO should form a working group taking salvors on board to develop new ship building designs which permits extracting oil from stricken ship tanks in any situations including after sinking of the vessel. The sample layout is recommended in Figure 8 to understand a new kind of designs which enables salvors to extract oil quickly and safely. It is further recommended that these emergency arrangements should be included within the existing ship specific emergency towing manual with a revised name of “Ship emergency manual for salvors”.

## International Standard connection for salvors to use in emergency

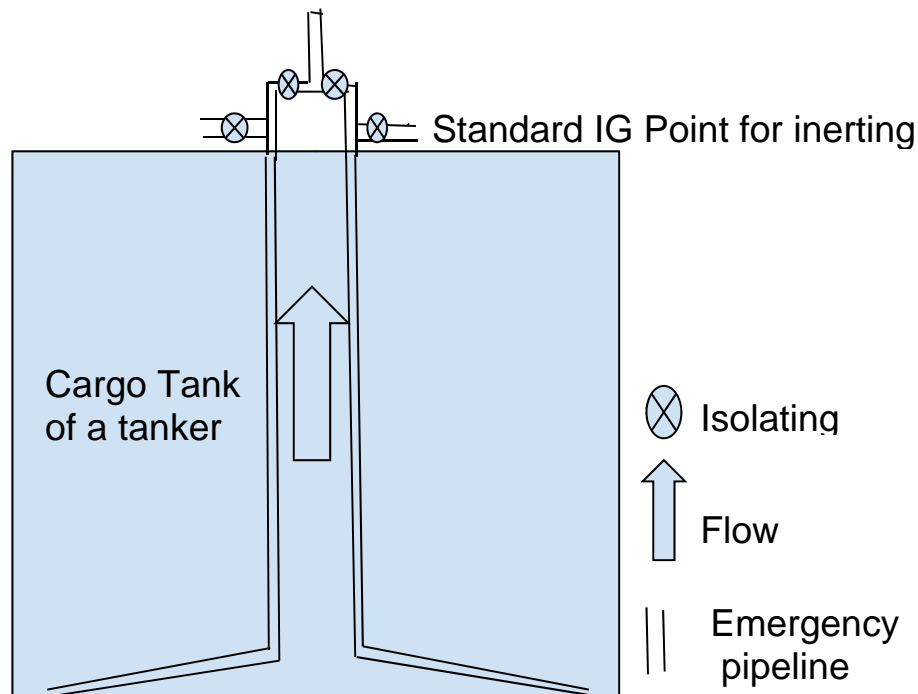


Figure 8: Sample plan view of the proposed tank design for the extraction of oil in an emergency by salvors.

Second, the current Salvage Convention work was started around the 1980s and now almost 4 decades are over. Many new developments have taken place in the salvage industry such as a mechanism of ETVs, SCOPIC clause, case laws, autonomous shipping and mega container ships. It is time for IMO to form another working group to achieve the objective of safer shipping and cleaner oceans by “charting a new course” for the Salvage Convention. The recommendations are as follows (CMI, 2011; Ekhaton, 2016; LI, 2005):

- a. Amend the definition of 1(d) “damage to marine environments” to have a wider meaning of it.
- b. Merge Article 14 with SCOPIC clause with a new Article without any conditions of SCOPIC security and with equal rights of salvors and shipowners to use.

- c. Amend Article 11 to include mandatory obligation of the coastal States to provide sheltered waters or ports to stricken ships in larger public interest to control damage to a bigger area.
- d. New provisions on channelling provisions available under liabilities conventions for preventive measures taken to prevent marine environment to be included.
- e. New provisions on salvors qualification and competence and authorisation of salvors in coastal waters regarding salvage equipment and salvage plan must be approved by the flag states.
- f. Amendments to Article 8 on salvors obligation may be classified broadly.

Thirdly, the most important missing Article on practical problems of salvage on negotiation and disputes between salvors, insurers (Marine and P&I) and owners (cargo & ship) should be incorporated (Ekhtor, 2016; LI, 2005). Also, coastal States may play an important role in providing quicker and faster solution with overriding authority to order private parties which are obligatory in nature while operating in national waters including EEZs. The above authority may be delegated to a responsible person nominated by coastal States with the highest nautical seafaring background and administrative experience to deliver quicker and effective solutions to practical problems. The intervention of a coastal State in private law matters should form part of the new Convention.

#### **6.2.4 Insurance [Marine and P&I Insurance]**

Insurance companies are considered as the backbone of maritime trade. With regard to discussions held on the topic, it is recommended that underwriters should incorporate the necessary provisions into their insurance contracts, so that shipowners are well versed with the issues arising during salvage operations. Insurance companies may require revising funding agreements 1990 held between IG P&I and H&M underwriters to include Non-IG members so that ship owners may get advantage and avoid practical issues during salvage operations.

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## Appendices

### Appendix 1 - Applicable International Conventions

The following international Conventions and Protocols are in force and used for writing this dissertation;

- United Nations Convention on the Law of the Sea (UNCLOS), in particular Part XII and article 211 & 221 thereof;
- The Convention on the High Seas, 1958;
- The Brussels Convention for the Unification of Certain Rules with Respect to Assistance and Salvage at Sea, 1910;
- The International Convention for the Prevention of Pollution of the Sea by Oil, 1954;
- International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (the Intervention Convention), 1969, as amended;
- Protocol relating to Intervention on the High Seas in Cases of Pollution by substances other than Oil, 1973;
- The International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974), as amended, in particular chapter V thereof;
- International Convention on Salvage, 1989 (the Salvage Convention);
- International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (the OPRC Convention);
- The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78);
- The International Convention on Maritime Search and Rescue, 1979 (SAR 1979), as amended.
- London dumping Convention 1972;
- Convention on Limitation of Liability for Maritime Claims (LLMC), 1976.
- International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969.
- International Convention on Civil Liability for Oil Pollution Damage (CLC), 1992.
- The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND), 1992.

## **Appendix 2 - Excerpts from the International Salvage Convention, 1989**

The excerpts of the International Salvage Convention, 1989 has been reproduced below which was frequently discussed in this paper.

### Article 6 - Salvage contracts

1. This Convention shall apply to any salvage operations save to the extent that a contract otherwise provides expressly or by implication.
2. The master shall have the authority to conclude contracts for salvage operations on behalf of the owner of the vessel. The master or the owner of the vessel shall have the authority to conclude such contracts on behalf of the owner of the property on board the vessel.
3. Nothing in this article shall affect the application of article 7 nor duties to prevent or minimize damage to the environment.

### Article 8 - Duties of the salvor and of the owner and master

1. The salvor shall owe a duty to the owner of the vessel or other property in danger:
  - (a) to carry out the salvage operations with due care;
  - (b) in performing the duty specified in subparagraph (a), to exercise due care to prevent or minimize damage to the environment;
  - (c) whenever circumstances reasonably require, to seek assistance from other salvors; and
  - (d) to accept the intervention of other salvors when reasonably requested to do so by the owner or master of the vessel or other property in danger; provided however that the amount of his reward shall not be prejudiced should it be found that such a request was unreasonable.
2. The owner and master of the vessel or the owner of other property in danger shall owe a duty to the salvor:
  - (a) to cooperate fully with him during the course of the salvage operations;
  - (b) in so doing, to exercise due care to prevent or minimize damage to the environment;and



(c) when the vessel or other property has been brought to a place of safety, to accept redelivery when reasonably requested by the salvor to do so.

#### Article 9 - Rights of coastal States

Nothing in this Convention shall affect the right of the coastal State concerned to take measures in accordance with generally recognized principles of international law to protect its coastline or related interests from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty which may reasonably be expected to result in major harmful consequences, including the right of a coastal State to give directions in relation to salvage operations.

#### Article 10 - Duty to render assistance

1. Every master is bound, so far as he can do so without serious danger to his vessel and persons thereon, to render assistance to any person in danger of being lost at sea.
2. The States Parties shall adopt the measures necessary to enforce the duty set out in paragraph 1.
3. The owner of the vessel shall incur no liability for a breach of the duty of the master under paragraph 1.

#### Article 11 - Co-operation

A State Party shall, whenever regulating or deciding upon matters relating to salvage operations such as admittance to ports of vessels in distress or the provision of facilities to salvors, take into account the need for cooperation between salvors, other interested parties and public authorities in order to ensure the efficient and successful performance of salvage operations for the purpose of saving life or property in danger as well as preventing damage to the environment in general.

#### Article 13 - Criteria for fixing the reward

1. The reward shall be fixed with a view to encouraging salvage operations, taking into account the following criteria without regard to the order in which they are presented below:

- (a) the salved value of the vessel and other property;
- (b) the skill and efforts of the salvors in preventing or minimizing damage to the environment;
- (c) the measure of success obtained by the salvor;
- (d) the nature and degree of the danger;
- (e) the skill and efforts of the salvors in salving the vessel, other property and life;
- (f) the time used and expenses and losses incurred by the salvors;
- (g) the risk of liability and other risks run by the salvors or their equipment;
- (h) the promptness of the services rendered;
- (i) the availability and use of vessels or other equipment intended for salvage operations;
- (j) the state of readiness and efficiency of the salvor's equipment and the value thereof.

2. Payment of a reward fixed according to paragraph 1 shall be made by all of the vessel and other property interests in proportion to their respective salved values. However, a State Party may in its national law provides that the payment of a reward has to be made by one of these interests, subject to a right of recourse of this interest against the other interests for their respective shares. Nothing in this article shall prevent any right of defense.

3. The rewards, exclusive of any interest and recoverable legal costs that may be payable thereon, shall not exceed the salved value of the vessel and other property.

#### Article 14 - Special compensation

1. If the salvor has carried out salvage operations in respect of a vessel which by itself or its cargo threatened damage to the environment and has failed to earn a reward under article 13 at least equivalent to the special compensation assessable in accordance with this article, he shall be entitled to special compensation from the owner of that vessel equivalent to his expenses as herein defined.

2. If, in the circumstances set out in paragraph 1, the salvor by his salvage operations has prevented or minimized damage to the environment, the special compensation payable by the owner to the salvor under paragraph 1 may be increased up to a maximum of 30% of the expenses incurred by the salvor. However, the tribunal, if it deems it fair and just to do so and bearing in mind the relevant criteria set out in article 13, paragraph 1, may increase such special compensation further, but in no event shall the total increase be more than 100% of the expenses incurred by the salvor.
3. Salvor's expenses for the purpose of paragraphs 1 and 2 means the out-of-pocket expenses reasonably incurred by the salvor in the salvage operation and a fair rate for equipment and personnel actually and reasonably used in the salvage operation, taking into consideration the criteria set out in article 13, paragraph 1 (h), (i) and (j).
4. The total special compensation under this article shall be paid only if and to the extent that such compensation is greater than any reward recoverable by the salvor under article 13.
5. If the salvor has been negligent and has thereby failed to prevent or minimize damage to the environment, he may be deprived of the whole or part of any special compensation due under this article.
6. Nothing in this article shall affect any right of recourse on the part of the owner of the vessel.

### **Appendix 3 - Excerpts from Law of the Sea Convention**

The excerpts from the International Convention on the law of the sea, 1982 is reproduced herein below;

#### Article 24 - Duties of the coastal State

The coastal State shall not hamper the innocent passage of foreign ships through the territorial sea except in accordance with this Convention. In particular, in the application of this Convention or of any laws or regulations adopted in conformity with this Convention, the coastal State shall not: impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage; or discriminate in form or in fact against the ships of any State or against ships carrying cargo to, from or on behalf of any State.

The coastal State shall give appropriate publicity to any danger to navigation, of which it has knowledge, within its territorial sea.

#### Article 25 - Rights of protection of the coastal State

The coastal State may take the necessary steps in its territorial sea to prevent passage which is not innocent.

In the case of ships proceeding to internal waters or a call at a port facility outside internal waters, the coastal State also has the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters or such a call is subject.

The coastal State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security, including weapons exercises. Such suspension shall take effect only after having been duly published.

#### Article 98 - Duty to render assistance

Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers: to render assistance to any person found at sea in danger of being lost; to proceed with all possible speed to the rescue of persons in distress if informed of their need of assistance, in so far as such action may reasonably be expected of him; after a collision, to render assistance to the other ship, its crew and its passengers and, where

possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.

Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements cooperate with neighbouring States for this purpose.

Article 194 - Measures to prevent, reduce and control pollution of the marine environment

1. States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.

2. States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.

3. The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment..... devices.

4. In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention.

5. The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.

Article 195 - Duty not to transfer damage or hazards or transform one type of pollution into another

In taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.

Article 198 - Notification of imminent or actual damage

When a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organizations.

Article 199 - Contingency plans against pollution

In the cases referred to in article 198, States in the area affected, in accordance with their capabilities, and the competent international organizations shall cooperate, to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage. To this end, States shall jointly develop and promote contingency plans for responding to pollution incidents in the marine environment.

Article 211 - Pollution from vessels

1. States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption, in the same manner, wherever appropriate, of routing systems designed to minimize the threat of accidents which might cause pollution of the marine environment, including the coastline, and pollution damage to the related interests of coastal States. Such rules and standards shall, in the same manner, be re-examined from time to time as necessary.
2. States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry..... conference.
3. States which establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters ...paragraph 2.

4. Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage. Such laws and regulations shall, in accordance with Part II, section 3, not hamper innocent passage of foreign vessels.

5. Coastal States, for the purpose of enforcement as provided for in section 6, may in respect of their exclusive economic zones adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference ...communication.

7. The international rules and standards referred to in this article should include *inter alia* those relating to prompt notification to coastal States, whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges.

Article 221 - Measures to avoid pollution arising from maritime casualties

1. Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

2. For the purposes of this article, "maritime casualty" means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

Article 225 - Duty to avoid adverse consequences in the exercise of the powers of enforcement

In the exercise under this Convention of their powers of enforcement against foreign vessels, States shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring it to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk.

## **Appendix 4 - Excerpts from Indian Merchant Shipping Act, 1958**

### **PART XIA - PROVISIONS FOR CONTAINMENT OF ACCIDENTAL POLLUTION**

356J. Power to give a notice to owner, etc., of polluting ship.—(1) Where the Central Government is satisfied that— (a) [oil or noxious liquid substance] is escaping or is likely to escape from a tanker, a ship other than a tanker or any off-shore installation; and (b) the [oil or noxious liquid substance] so escaped or likely to escape is causing or threatens to cause pollution of any part of coasts or coastal waters of India, it may, for the purpose of minimising the pollution already caused, or, for preventing the pollution threatened to be caused, require— (i) the owner, agent, master or charterer of the tanker,

(ii) the owner, agent, master or charterer of the ship other than a tanker,

(iii) the owner, agent, master, charterer or operator of a mobile off-shore installation,

(iv) the owner, operator, lessee or licensee of off-shore installation of any other type, or all or any of them, by notice served on him or as the case may be on them, to take such action in relation to the tanker, ship other than a tanker, mobile off-shore installation, or, as the case may be, off-shore installation of any other type or its cargo or in relation to both, as may be specified in such notice.

(2) Without prejudice to the generality of sub-section (1), the notice issued under that subsection may require the person or persons on whom such notice is served to take action relating to any or all of the following matters, namely: —

(a) action for preventing the escape of [oil or noxious liquid substance] from the tanker, ship other than a tanker mobile off-shore installation or off-shore installation of any other type;

(b) action for removing [oil or noxious liquid substance] from the tanker, ship other than a tanker, mobile off-shore installation or off-shore installation of any other type in such manner, if any, and to such place, if any, as may be specified in the notice;

(c) action for removal of the tanker, ship other than a tanker, mobile off-shore installation or off-shore installation of any other type to a place, if any, as may be specified in the notice;

(d) action for removal of the [oil or noxious liquid substance] slicks on the surface of the sea in such manner, if any, as may be specified in the notice;

(e) action to disperse the 1 [oil or noxious liquid substance] slicks on the surface of the sea in such manner, if any, as may be specified in the notice.



- (3) The Central Government may, by any notice issued under sub-section (1), prohibit the removal— (a) of the tanker, ship other than a tanker, mobile off-shore installation or off-shore installation of any other type, from a place specified in the notice;
- (b) from the tanker, ship other than a tanker, mobile off-shore installation or off-shore installation of any other type, of any cargo or stores as may be specified in the notice, except with its previous permission and upon such conditions, if any, as may be specified in the notice.
- (4) Notwithstanding anything contained in sub-section (2), the Central Government may, if it is of the opinion that the pollution caused or likely to be caused has or may present a grave emergency, proceed to take such measures as may be deemed necessary and any measures so taken shall be deemed to have been taken under section 356K.

356K. Powers to take measures for preventing or containing [oil or noxious liquid substance] pollution.—(1) Where any person fails to comply, or fails to comply in part, with any notice served on him under section 356J, the Central Government may, whether or not such person is convicted of an offence under this Part by reason of his having so failed to comply, cause such action to be taken as it may deem necessary for— (i) carrying out the directives given in the notice issued under section 356J; and (ii) containing the pollution already caused or preventing the pollution threatened to be caused, of coastal waters or, as the case may be, of any part of the coast of India by [oil or noxious liquid substance] escaped or threatening to escape from the tanker, a ship other than a tanker, a mobile off-shore installation or off-shore installation of any other type.

(2) Subject to the provisions of Part XB, any expenditure or liability incurred by the Central Government in, or by reason of, the exercise of powers under sub-section (1) in relation to any tanker, ship other than a tanker, mobile off-share installation or off-shore installation of any other type in respect of which a notice had been issued under section 356J, or its cargo of [oil or noxious liquid substance] that had escaped or was discharged into the sea, shall be a debt due to the Central Government by the person or persons on whom the notice was served.....behalf.

356L. Power of the Central Government to give directions to certain ships to render certain services.—(1) Where for the purposes of taking any measures under sub-section (1) of section 356K, services of any Indian ship becomes necessary for— (i) lightening or transporting any cargo

or equipment from or to the polluting ship; or (ii) providing any assistance to any other ship or equipment engaged in rendering services under clause (i), the Central Government may, if it deems it necessary so do, direct, by an order in writing, the owner of any Indian ship, tug, barge or any other equipment to provide such services or assistance as may be specified in that order.

(2) The owner of any ship, tug, barge or any other equipment with respect to which an order under sub-section (1) has been made shall be entitled to tariff rates of freight and charter hire at reasonable rates having regard to current market conditions: Provided that where tariff rates of freight are not fixed or where there is any dispute about reasonable rate of charter hire, the freight or, the case may be, charter hire, shall be paid at such rates as may be fixed by the Director-General by an order in writing.

(3) Where in pursuance of the proviso to sub-section (2), the Director-General makes any order fixing rates of freight or charter hire, he shall determine reasonability of such rates of freight or charter hire by examining such witnesses, documents and accounts as he may deem necessary.

#### PART XIII WRECK AND SALVAGE WRECK - Salvage

402. Salvage payable for saving life, cargo or wreck. —(1) Where the services are rendered— (a) wholly or in part within the territorial waters of India in saving life from any vessel, or elsewhere in saving life from a vessel registered In India; or

(b) in assisting a vessel or saving the cargo or equipment of a vessel which is wrecked, stranded or in distress at any place on or near the coasts of India; or

(c) by any person other than the receiver of wreck in saving any wreck; there shall be payable to the salvor by the owner of the vessel, cargo, equipment or wreck, a reasonable sum for salvage having regard to all the circumstances of the case.

(2) Salvage in respect of the preservation of life when payable by the owner of the vessel shall be payable in priority to all other claims for salvage.

(3) Where salvage services are rendered by or on behalf of the Government or by a vessel of the Indian Navy [or of the Coast Guard] or the commander or crew of any such vessel, the Government, the commander or the crew, as the case may be, shall be entitled to salvage and shall have the same rights and remedies in respect of those services as any other salvor.

(4) Any dispute arising concerning the amount due under this section shall be determined upon application made by either of the disputing parties— (a) to [Judicial Magistrate of the first class or Metropolitan Magistrate, as the case may be,] where the amount claimed does not exceed ten thousand rupees; or (b) to the High Court, where the amount claimed exceeds ten thousand rupees.

(5) Where there is any dispute as to the persons who are entitled to the salvage amount under this section ...purpose aforesaid.

404. Power to make rules respecting wreck and salvage. —(1) The Central Government may make rules to carry out the purposes of this Part.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely :— (a) the procedure to be followed by a receiver of wreck in respect of the taking possession of wrecks and their disposal; (b) the fees payable to receivers in respect of the work done by them; (c) the procedure to be followed for dealing with claims relating to ownership of wrecks; (d) the appointment of valuers in salvage cases; (e) the principles to be followed in awarding salvage and the apportioning of salvage; (f) the procedure to be followed for dealing with claims for salvage; (g) the detention of property in the custody of a receiver of wreck for the purpose of enforcing payment of salvage.